

Medicina Veterum vindicata 2

OR

AN ANSWER

To a Book, entituled

Medela Medicinæ;

In which the ancient Method and Rules are defended, and farther shewed, that there is no such change in the Diseases of this Age, or their Nature in general, that we should be obliged to an alteration of them,

Against the Calumnies and bitter Invectives of an Author who calls himself *M. N. Med. Londinens.* but in his Epistle before a Book, put out by Mr. *Bolnest*, gives himself the name of *Mar. Nedham*.

By *John Twysden*, Doctor of Physick, and one of the Fellows, of the Kings College of Physicians in *Lond.*

London, Printed by *J. G.* for *John Crook*, at the Sign of the Ship in *St. Paul's Church-yard*. 1666.

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TO THE UNIVERSITY OF CHICAGO
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*To the Right Honorable, Edward Earl of
Clarendon; Lord High Chancellor of
England, Chancellor of the University of
Oxford, and one of His Majesty's
most Honorable Privy Council.*

OF THE BOARD

*To the Right Hon. Sir John Keeling,
Knight, Lord Chief Justice of His Ma-
jesty's Court of Kings-Bench.*

*The Right Hon. Sir Orlando Bridgman,
Knight and Baronet, Lord Chief Justice
of His Majesty's Court of Common-
pleas.*

*To the Right Hon. Sir Matthew Hales,
Knight, Lord Chief Baron of His Ma-
jesty's Court of Exchequer: With all the
rest of the Judges and Barons of His
Majesty's Courts in Westminster.*

*My Lord, and you, my Lords,
the Judges,*

BE pleased to give me
leave to acquaint
your Lordships, that I
A 2 have

The Epistle

have not presum'd to present this small Tractate under so noble a Patronage, out of any worth I conceive it can draw from the Author, but onely what it takes from the nobleness of the Subject, being the Profession of Physick, a Profession of late struck at by many Writers, who have not made themselves in any thing more famous then in their bold Calumnies against those Rules and Method,

Dedicatory.

Method, which more learned men than themselves have for many Ages thought fit to recommend unto Posterity. Neither have they rested here, but endeavoured to draw His most Gracious Majesty's concurrence to their undertakings, and by that dangerous way of innovating through subscriptions of Hands, laboured to erect a new Society of Chymical Physicians in

A 3 Lon-

The Epistle

London, in opposition to
that Body already sealed.

'Tis certainly high
time to fly to your Lord-
ships for protection,
whose wisdom is dis-
cerning enough, and in-
tegrity always awake to
do justice to our poor
College, especially when
His Majesty's Name is
like to be traduced, their
Liberties granted by His
Charters, and confirmed
by Acts of Parliament, in
danger

Dedicatory.

danger to be infringed,
by introducing a Liber-
ty in practising Physick
by every one shall pre-
tend himself able in that
Faculty.

I shall humbly cast
my self and what I have
written at your Lord-
ships feet, being in no-
thing more ambitious
then by any act of mine
to express the great Ho-
nour I have for all of
your learned Profession,

A 4 and

The Epistle, &c.
and the service I shall
ever readily pay to your
Persons, who am,

My Lords,

Your Lordships

Most humble Servant,

JOHN TWYSDEN.

The



THE PREFACE.



I will not be amiss to let the Reader understand, that I had not put an end to the Answer of Medela Medicina, published by M.N. when there came to my hands a Treatise, made publick by one Edward Bolnest, called Medicina Instaurata, with an Epistolary Discourse prefixed by the Author of Medela Medicinæ; at the end of this Epistle you have his name, Mar. Needham: so that we need no more guess at him who now owns the Name and Book. I have passed my censure upon the first, and hold it not unprofitable to the Reader to make some Reflections upon the last. He begins with
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*a commendation of those noble Preparations, the virtues whereof the Author of that Treatise gives, as he saith, the world some account of; then commends his learning and ability, and from that one example concludes, that their Society are not a company of illiterate Professors: 'twould indeed follow, that if there were one learned man among them, that they were not all illiterate; but, notwithstanding, the Society might be unlearned, and, as perhaps it will be found, most of them very ignorant, for denominatio sumitur à majore parte. But I had let this pass had he not made use of this mans parts to upbraid those, that are truly and deservedly made Doctors in our Universities, by calling them in scorn their Worships, and Mr. Doctors, telling us of strange Cures every day performed by their party, with new Medicines and Preparations, which are left us incurable by Galenick remedies; things false
and*

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and ridiculous, and with no wise man to gain credit, till upon a full information of the fact and knowledge of the Medicine, it might appear to the world to be new, and I believe it would then be found, that nothing is used by any of that gang but what hath been long enough known to others, and often practised with various success. But 'tis with these men as with your common Fortune-tellers, who upon a good guess are cried up as rare Artists, when their numerous lies are not taken notice of. So one cure, after the application of any remedy by these men is by their own Trumpet blown about, whereas the many killed by their ignorance are not taken notice of. After some more vain excursions against the unprofitable learning and idle pride of the Professors of Physick, and the Scholastic way of learning, which must needs strike at all Universities where 'tis professed, as he doth at that

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Scarlet there given them as a badge of their honour, worthily acquired in those places, interlarding his discourse with disgraceful speeches against Hippocrates and Galen, whom he calls Dreamers, and a jeer or two against those that were admitted Fellows of the King's College of Physicians in London, in honorem, not considering, that unhandsome glances at actions done by Collegiate Bodies, allowed by the Kings Charter, and established in their Rights by Acts of Parliament, doth obliquely strike at the Founder and Protectors of them: nor that those preferred by us to that honour were persons most of them of great desert and knowledge in that Science they before made Profession of, and many of them dignified with Honourary Titles from the King. He tells you of the great labour of him and his fellows to erect a new College, (which, by the way, yet lies in Utopia, or buried in the middle
of

The Preface.

of the Atlantick Sea) to put people in a ready way of ease and security for their lives and purses ; asserting, that most of the Lords and Noble Gentlemen of learning prefer their way before the Galenick ; and that therefore we cry up our selves also as Chymists, things very injurious to the whole body of the Nobility and Gentry, out of which I am confident they cannot pick ten Families that will venture their healths upon the practise of these Operators (as they call themselves) by Fire, without the sound advise and judgment of those well skilled in the Dogmatick or Galenick way. 'Tis true, Gens humana est novitatis avida, some may be content to hear them talk and brag of their great feats in Physick, and perhaps to divert themselves, see some Chymical operations which are delightful enough, and by these great boasters commended in their effects above the truth. But let these men be touched with an acute sickness, to
a 3 whom

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whom will they then have recourse
I would gladly know: to these, many
of them illiterate pretenders, or to
others of sound judgment and un-
derstanding? Experience shews their
practise lies generally among those
who frequent Mountebanks Stalls,
who for six-pence will sell them Me-
dicines to cure all diseases. In the
next place 'tis a wrong to those Phy-
sicians that are skilled, as many are,
in Chymical operations, as if they
made a preterence of that knowledge,
because they saw the other way de-
serted; whereas with more reason he
ought to believe their study and
knowledge therein proceeded from
their consideration, that 'twas a ne-
cessary part of that learning be-
longed to every Physician, yet not
to make the other despised. From
putting a scorn upon the Scholastick
rode, deriding the Kings College of
London, and slighting Hippocrates
and Galen, lest we might judge no-
thing lesse praise-worthy, he falls into
the

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the commendation of himself and his fellow-writer ; yet must that be usher'd in with a contempt put upon the Universities, as well forein as our own, for their easiness to confer Academick Honours upon undeservers. He tells you they are University-men, and, no doubt, paying their Fees may bring their Formalities to London. But that all Academick Honours, and the Venison that helps to make them, are not worth the loss of one afternoon in their Laboratory ; where they are so employ'd, that they have not leisure to cross the Seas, and have the Proverb made good of them, Accipimus Aurum, dimittimus Asinum. 'Twill certainly be well for the world, when they shall see this great Harvest, now in expectation from their immense labours, brought under the Sickle. I wish it may not be verifi'd which is wittily said by Minusculus, in his Testamentum Hadrianeum, Stercoreum inveniet qui stercorea

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feminat aruum : Sow dung, you shall
reap muck. But in earnest, Mr. Ned-
ham, are you not to blame, that at
once make all the world your ene-
mies ? is it not a strange piece of in-
gratitude, that a son should complain
of the indulgence of his mother, when
'tis applied to himself ? If Universi-
ties either at home or abroad have
been too easie sometime in conferring
degrees, shall any one matriculated
into that University take a liberty
to upbraid them for it ? Does the
reasons of their actions always
appear ? Perhaps they may think,
and justly, that ability in o-
ther parts of literature may be fitly
rewarded with the Honours due to
another Faculty. Perhaps they may
discover something that may promise
a future progress worthy that Ho-
nour they confer. But in truth, will
it be found so easie ? Let him go
abroad, perhaps he will find himself
deceived. I never knew any Degree
conferred abroad without a previous

exa-

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examination, and rigid enough, if they believe you intend to profess that Faculty you desire to be promoted to. Let him then return and desire admittance to the same Degree in his own University, when he hath passed the examination of the Professor in Physick, the Vice-chancellor, and other Delegates appointed for that Faculty, and has obtained Certificates from such a number as is designed to attest they believe him fit to pass; and after all this, shall then come to supplicate the University for his Degree. Let him lastly come to be admitted as a member of the College at London, and pass a three months examination by the President and four Censors, and after this stand the test of all the Fellows met together, and perhaps he will not find his passage to that Degree, and the accumulations of it so very easie a matter to pass through. Yet after all these unbandsome reflexions, both upon the men and the Universities which promoted them, we must believe he despiseth not Academick Honours, nay, that ours are the most refined in Europe, and deserve all honour we can give them. This were pretty well from one that hath not leisure to go to them. But we
may

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may observe (as 'tis said of the Lamprey) a string of poison runs through the body of these words. 'Tis a good flower in Rhetorick, often used by Tully in his Orations against Catiline, Anthony, and other, to reckon up the virtues, parts and abilities of them he means to destroy, that by laying to view what those virtues should have taught them to do, their vices might be more conspicuous. Quos laudando maximè vituperat. The Academic Honours are not to be despised, ours are the most refined, more wary in distribution of Degrees. But still the body of Practisers are made up of titular things, foisted up among Foreiners, or else by alliance at home, the favour or recommendation of some Father, or Unkle, or Cousin Doctor, that hath had a name, though perhaps little more of true knowledge in Medicine then the Novice he prefers. Great wariness indeed in the Universities to admit such titular things, but whom hath he known by them or the College of London so admitted? Where is then that great body of Practisers so preferred? Perhaps he may reflect upon the Bishops and their Chancellors, and their admittance

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ance of persons to practise upon such favour
of commendation. If there be such an abuse
by any of them, let them answer for them-
selves, upon examination I am confident no
such thing will be found. The other mean
ways of promoting their practise from listing
themselves in the number of some numerous
party, colloquing with Midwives and Nurses;
as I believe them for the generality very
false, so admit them true, yet have they much
more honesty then that used by these new pre-
tenders to advance themselves by defaming
all others, nay those great Masters, to whose
labours all the world is beholding, that by
this means they may work upon the credulity
of ignorant persons, unable to judge in any
Science, much less in that of Physick.

After this, and an excursion in commen-
dation of himself and Mr. Bolnest, with a
slight neglect put upon others, he falls upon
Dr. Sprackling, the Author of *Medela Igno-*
rantia, whom he scorns to name, lest the
world should take notice of him by this great
persons vouchsafing any thing in reply to what
he saith, but tells you, he calls him illiterate,
(which, by the way, is not applied to his per-
son

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son, but his plea) but if he had done so, Mr. Nedham is not behind-hand, for within a few lines he reckons him among the slight Fellows that are made Doctors, talks of other small Beagles and little Doctoral fellows at the Pres ready to open against him, but that neither he nor the Book-buyers shall take notice of them, in a contest which it rather concerns their grave and formal Leaders to clear if they can, and the world (as he saith) hath reason to expect it from them. And upon the same subject quotes a sentence out of Joseph Scaliger, who being told that an obscure fellow had written maliciously against him, expresseth himself thus, Mihi relatum fuit Scarabeum quendam contra me scribere cui respondere neque dignitatis est nec otii. I confess I dislike not Mr. Nedham's artifice to neglect a reply, to what it may be is not so easily answered, and that under pretence of giving the obscure Writers some name and reputation, by this Champions appearing in the lists against them. Did he not at the same time endeavour to raise to himself some glory and renown by provoking more learned Pens to write against him? But I presume

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sume he will fail in this particular, and go away with the reward of the poor Vicar, who in the times of Rebellion got to preach at White-hal before Oliver Cromwel, and there inveighed bitterly both against him and all the proceedings of those times; insomuch that Oliver had it in debate to question him for his Sermon, till a wiser man represented unto him, that he was an obscure person, who endeavoured by this means onely to get himself a name and better living from that party which was loyal to His Majesty, after, it may be, a month or two of imprisonment; whereas otherwise if he were let alone, the Sermon would die and the man be forgotten: which counsel was followed with a success according to that prognostick. But lest our Authar should glory too much in the example of Joseph Scaliger, and think himself equal to that great man in learning, and therefore imitate him in his pride in reviling and scorning others, as Mr. Nedham doth: give me leave to tell the Reader the whole story of that passage, and the occasion of it, which, if this Gentleman's intelligence had not failed him, he might have applied to himself and eased me. Thus it was:
One

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One Thomas Lidiat, Vicar of a poor Town called Alkerton in Oxfordshire, or the edge of it, a very learned man, but especially in Chronological learning, happened to put out a Book de emendatione temporum, much about the same time, yet before that large one of Scaligers, of the same Title, in which Lidiat falling upon many Notions that Scaliger had, and differing from him in others, particularly in the time of the Birth of our Saviour, which Lidiat puts four years before Scaliger; this incited the learned man, who could not well brook a contradiction, to write an Answer to Lidiat's Book, in which he slighted the poor man, calls him in scorn Anglus homo & nescio quis propheta, with such like scoffs. But soon after Lidiat replied against this Answer, and justifies himself both solidly and modestly; but whilst this Book was in hand, Scaliger thought fit to make an Answer, before it came out, in the words quoted by Mr. Nedham. Other it never had. Many thought then and do still, because his reasons were too strong to be refuted. But not long after the poor man lying in his bed had his house broken, and was himself sorely beaten.

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beaten and wounded by disguised persons, who were never known, nor took thence the value of one farthing: insomuch that many suspected that usage to come from the forge of Scalliger, who not being able to answer his reasons, thought fit to be revenged upon him with clubs. The relation of this last passage I had from the mouth of a person of great integrity, who saw and spake with him when his face was swelled, and ill with the said beating. Let Mr. Nedham take heed that the first part of this Relation be not applicable to him; and if he shall hereafter think fit to engage himself farther against Hippocrates, Galen, and all the Ancients, I should advise him to write in some language that may carry his conceits beyond our English world, that other Nations may both judge of the controversie, and either submit to his determination, or vindicate those Authors, if none in England shall think fit to do it. The rest of his Epistle is but a short abridgment of what lies scattered in his Book, and is there spoken to. There onely rests now that I should advertise the Reader, that this Treatise, such as it is, had come out many months sooner, had not the Visitation by the

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the hand of God hindered the going on of the Press. My absence upon other occasions, and the Corrector's carelessness have caused some faults to have escaped the Press, chiefly literal, in the omission of a letter sometimes in the Greek quotations, other times mis-accenting, sometimes false spelling; all which the Reader will, I hope, candidly correct, particularly to blot out the word smattering in the third page, which I assure him was not in the Copy sent by me to the Press, however it crept in, as did also the Titular Superscriptions in some of the leaves of the first and second sheets, which I desire Mr. Nedham as well as the Reader to believe were not my own, who neither affect lightness nor abuse toward one I know not to have ever seen or spoken with.

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Medicina Veterum Vindicata :

O R,

A JUSTIFICATION

Of the

Ancient Method

O F

PHYSICK.

IN this scribbling Age wherein we live, and in which all men take liberty to present the world with things unknown, or pretended to be so, to precedent Ages, I have not observed any Professions more assaulted, by these bold attempters, than the three most noble, Divinity, Law, and Physick. The first directing us to a future happiness,

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as we are men endued with Reason, and an Immortal Soul. The second, as we are a Society of men to be kept and governed by such rules and directions, as are fit to preserve the whole in Unity and Peace with one another. The third, as we are natural bodies, made up of such a harmony and conjunction of parts, which being fitly united together and so kept, each of them subservient to the other in their proper Functions, preserve the whole intire as a fit Instrument for the Soul to exercise her faculties by.

I shall let pass the two first, as not proper to my Profession or undertaking, but leave it to the sad consideration of those that are expert in those Professions, if the very foundations, and most received Maxims of them both have not been struck at by some late pretenders to a greater measure of knowledge, or revelation, than

than their Brethren. In Physick, what almost has not been attempted by confident and over-bold persons, who though they would be thought Masters of much more knowledge than their neighbors, will yet upon examination be found not to have peirced so deep as others have, into the right knowledge and understanding of the first *præcognita*, without which, it is impossible to lay any solid foundation, upon which either themselves or others may safely raise any permanent superstructure? Amongst many, I find none seems more assured of his cause, than an Anonymous Writer, yet well enough known under his veil, and is it seems, a person of some ~~entering~~ understanding in Physick and other parts of Learning; yet who from some disjointed passages in several both Antient and Modern Writers, and some uncontroverted truths,

B 2 would

would make us believe that the Art of Physick lay sick, and almost desperate, except supported by his helping hand; but indeed, in stead of a Cordial, presents us a Purgative potion, which if taken, would soon send her to the grave, and leave nothing to arise from her ruines but ignorance and contempt. I must however give him thanks for his pains and labor, *Sæpe etiam olitor est opportuna locutus*: but truely shall advise none to buy his Medicine, who from some scattered Collections out of good authors, endeavors to violate the memories of those noble Artificers, and to shake the foundation which with so much wisdom hath been laid by them, and since happily built upon by others. Perhaps I shall find it a less easie task to answer him *ἔτι πρόσθε*, than some man at the first reading his Book may imagine, and that chiefly for two Reasons.

First,

First, Because it will be always found a more easie task to dispute with any Adversary, than with him, whose confidence makes him adventure at the denial of those very Principles upon which the Art is built, and that have passed the approbation of the learnedst of many Ages, and that upon full consideration, and, as most of the world hath since judged, a full confutation of what then was, or since is (for I find little materially new) urged against them; I mean the composition of bodies from the four Elements, the doctrine of the Humors, and the combination of Qualities, of which I shall have occasion to speak hereafter: because such a man cannot be confuted, without telling over again those Reasons that induced the Antients, both to believe them rational, and lay them down as things fit to be believed; and are like those Eccen-

6 *Inverts the sense of the Ancients,*
trick Circles and Epicycles in
Astronomy, which are not necessarily true, yet serve to reconcile appearances, and therefore are of equal value, as if they were undoubtedly so; since by them we are brought to a certain knowledge of that truth we seek for, at least such a knowledge as the nature of the thing sought for is capable of.

Secondly, Because I find this Author make use of many laudable sayings, both of Ancient and Modern Writers, inverting them to clean different senses than what they were produced for, as I shall in their examination, I hope, make very manifest. Insomuch that I have very much doubted, whether this Writer be not somewhat of kind with those persons whom *Aristotle* speaks of in his 30. *Problem, Sect. 1.* who being otherwise sober and grave, yet through some passion that transports them, are
taken

taken with such fits and fancies, that tis hard todistinguish whether they owe this to any acquired indisposition, or rather to a natural temperature of the body : his words are these, Πολλοὶ ὃ καὶ διὰ τὸ ἔργον εἶναι τῷ νοσῆναι τέπε ὃ θερμότητι ταύτην νοσήμασιν ἀλίσκονται μανικοῖς ἢ ἐνδυσιαστικοῖς — ὅταν μὴ νοσήματι γινώσκται ἀλλὰ φυσικῇ κρείσει. And truly had not this irregular work of his been in some measure of general concern, I should unwillingly have been drawn to have awaked him out of so pleasing a rapture; but have allowed him that return which the Emperor (if I mistake not, *Commodus*) is reported to have thought him worthy of, who in the pastime of darting at a Bull, used by the *Romans*, had unfortunately missed his mark many times, the Emperor caused money to be given him, with these words, *That twas praise-worthy to be excellently ill.*

B 4

But

But let me now come to a little neerer consideration of the book it self, and in it begin with his first Chapter, whose title is,

That it is for the good of mankind there should be a liberty allowed in the profession of Physick.

What he means by this equivocal word, *Liberty in the Profession of Physick*, I well understand not; tis capable I think but of three interpretations.

The first is, that it should be free for all men to make that their Study and Profession, and use all reasonable endeavors to make themselves capable of that faculty.

The second is, a liberty in the examining and judging the dictates of those went before us, and adhere to them so farr as they do to Reason. A liberty in these two senses, was (that I know of) never denyed to any, nor a greater than this ever contested for by any Learned man. This, and no more
will

will his quotations out of *Galen*, ^{pag. 3.}
out of *Langius*, my Lord *Bacon*, and
all the rest warrant, who in all their
quotations, and the design of all
whose writing was no more than
to encourage all men in the enqui-
ry after truth, and new discove-
ries thereof, in which he is so far
from having me his adversay, that
I shall embrace him and his design,
and approve of them to my utmost
power, so that with modesty he
propound his notions, and not
magisterially deliver them, as di-
ctates capable from his single au-
thority and less experience, to
overthrow all that hath been laid
down before him. But that the
overthrow of all before him, is
part of his meaning, I am the ra-
ther induced to believe, from his
rash censure upon those who did
not at the first proposition embrace
the new doctrine of *Ticho*, *Hel-*
mont, *Harvey*, *Quercetane*, and o-
thers, as you may see from the
twelfth

twelfth Page, to the end of the first Chapter.

Is not this against his own rule quoted out of my Lord Bacon, p. 6. *Antiquity deserves that men should make a stay a while, and stand thereupon, &c?* and doth not he live to see every one of these men possessed of their due honor, and their truths, such of them as are found to be so, embraced with gladness? Who is more famous or esteemed all the world over, than the most learned Dr. *Harvey*, whose statue set up in the publike College, and Anniversary Oration upon his account will preserve his memory perhaps longer than the numerous more noble progeny deduced from other branches of that ancient and deserving family, whose notions have been more improved, and whose writings in their kind more admired? Why doth he so much blame the censure of the Physicians at *Paris*, upon the
the

The prudence of the Parisians. 11

the Spagyrical works of *Quercetane*, when as in truth there was no more than a prohibition of the use of them, till after a convenient stand made upon them, they had past their tryal, and with their Author, both received, the one as good Medicines, the other as a learned man? We must allow something to the heat and passion of men, who being exasperated, have not always that temper and moderation required; the like may be said to their censure upon Sir *Theodore de Mayern*, whose rough language is more condemned than any thing else; and it soon appeared to the world, what estimation they both deservedly had, and were both as great admirers and followers of the rational way in the practice of Physick, as any that went before them. Certainly this Writer, if he have any ingenuity, cannot but acknowledge, that tis not reasonable to make use of any
new

new remedy, either Spagyrical or other, whose virtues are not at all known 'so much as *in basi*, untill by some convenient experience it had been approved to be effectual to that end for which it is produced.

As for the purpose, put case some new Plant, Root, or Mineral should be brought from any Foreign part of the world, or found at home, of which there were no footsteps to be found in the *materia medica*, would not he be a bold adventurer that should make use of this in Physick, till he were assured it were not endued with a Noxious, rather than a Medicinal quality? Nay, admit he were assured, would he condemn all others that came not immediately to the like assurance, till they might have time to ground it upon some competent experience? This was the case with *Quercetane* and other Chymists at the first; the beginning

ning of which Art (though in it self good and profitable) we must attribute to that *Auri sacra fames*. For men having in vain laboured from the *Ænigmatical* writings of those Philosophers, which are called the *Adepti*, to find out that Universal Medicine, which should not onely cure all diseases, but likewise their itch of Gold, by turning all metalls into it, commonly called the Philosophers stone, were loth, when they saw themselves deceived, to lose all their labor, but not being able to cure themselves in whole, thought fit to propound what they had found, as fit Medicines for the cure of diseases, that by this means they might give a palliative cure to their own covetousness, and in some measure re-impurse themselves of some part of that expence, they had been, by cunning knaves, either cheated of, or themselves vainly expended. Since which

14 *Chymistry enlarged by Physicians.*

which time this Art hath, I confess, been much cultivated by many Learned men, and to a much better end. I mean to the advancement of Physick, whose labours therein deserve their due praise, so as they do not make use of the Daughter to pluck out the eyes of her Mother; and under pretence of Medicines, that forsooth must operate by occult qualities, and insensible transpirations, thrust out of doors all those that operate by those that are known and discovered, and indeed reduce all the *materia medica*, to the narrow compass of the *Minerologia*; for most of their preparations are out of a few of them, to wit, *Vitriol*, *Antimony*, *Salt-peter*, *Sulphur*, *Mercury*, and perhaps one or two more; to the end that with the help of three or four bottles carried in their pocket, they might supply the office of all other remedies used by the Dogmaticks, as they

The Dogmatist the best Chymist. 15

they in reproach style them; whereas in truth I dare confidently avow, that some of them have as much practised, and better understand the way of Chymical preparations, than the ablest of these pretenders do; they differ onely in this, the one makes use of them when his reason and judgement direct him they may be useful; the other promiscuously and at adventure; whose argumentations for the most part run thus (especially if at any time they deal in Vegetables) such and such a Vegetable is good in such a case, being taken into the body, therefore it shall be much more effectual if it be given in the Spirit, Salt, Extract, or the like; whereas in truth they are deceived, and many or most of them operate best, being given in substance, and the body left to make its own extraction, I shall let pass his immense commendations of *Paracelsus* and *Van Helmont*, whose

16 M. N. *liberty destroys all Profes.*

whose writings are to my understanding so obscure, that I shall forbear any censure upon them, till this or some other charitable person shall make me clearly understand the meaning of them.

I come now to the third and last way of the acceptation of these words, *Liberty in the Profession of Physick*. That is, a liberty for all men to profess and practise it, that will pretend themselves knowing in it, whether Students in the Art or not; if so, then why not in all other professions whatsoever, Divinity, Law, Musick, &c? a liberty which some of those persons, who call themselves *Gifted Brethren*, have endeavoured to bring in: Scorners of all humane Learning, many of which have appeared upon the Stage of late, and whose dictates must of necessity be admitted upon *liberty* taken in this sense. Nay then, why not a liberty in professing all Trades? which must

must bring a disorder and confusion upon the whole.

For a liberty of practice in selection of the remedies, the application of their Medicines, the judging the disease, was never denied to any Physician. But he that shall more narrowly look into this Writers design, will easily discover his intention to be to introduce an Empirical way of practice, wherein the practisers under-borrowed names, such as *Kibrick*, *Azoth*, *Alkabeft*, *Drif*, and a thousand such used frequently by some of that crew, would make the world believe themselves Masters of great secrets, which by insensible ways of operations must cure all diseases, and by that means open a door to ignorance and pride; for truly what needs any man Study Physiology or Pathology, when at the first turn he comes to the last round of the ladder, Therapeuticks?

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Tis

These Chymists grinde the poor.

Tis true indeed, they pretend a great deal of Charity to the poor, but the very plain truth is, tis to themselves, that, by disgracing others, they may bring custome to their Shops.

I shall not be obliged to use many arguments to prove that this is his main end. He that shall thoroughly read his Book, will see that poyson scattered through almost every leaf of it. I shall mention some of those passages, to which peradventure I shall hereafter speak more largely. *Pag. 92.* He tells you much mischief is often done by the use of such Medicines as in the common opinion have a passport every where to be employed against the Scurvy, as Scurvy-grass, Water-creffes, and the like; what is this but upon his single authority, and a freak of his own brain, to shake the use of all Specificks in others, and yet himself propound no better? and if

not

not he (I am sure most of that crew) pretend by some one specific Medicine, which forsooth must be held as a great secret, to cure all diseases.

Pag. 149. and forward to 153. He falls upon a large commendation of *Helmont*, in these words, The most acute and noble *Helmont* (whose doctrine, so much of it as he had laboured to understand, he could not but admire) and then from his Authority, and the example of one child so brought up by him, would persuade the world against bringing up children from the Breast, and have them all suckled by hand; and this from a conceit, that all the world is infected with the Pox, Scurvy, and I know not what complication of diseases; whereas in truth, admitting this were true, twill secure you onely against the Nurse (in the choice of whom commonly great care is taken)

ken) and not against the Parents, from whom is the greatest danger.

Beside, tis observable, that he makes almost, if not all diseases, not onely infectious by taction, but to transmit their poison at a distance by communication, breathing, and the like; so that upon this account he must bring the world to a solitary and single conversation, or the matter will not be helped.

Pag. 211. He dislikes the distinction of Rational and Empirical, and then tells you the great benefit he hath reaped from the collections made from them and old Women. I shall transcribe his words, though they are long. *But lest you should think, that I like this Distinction in the common use of it, let me tell you, that I, who for many years have conversed with such Professors of Physick, as some in scorn term Empiricks, and obser-*

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Women have taught M.N. all.

21

ved their various ways, and thought it no shame to make Collections from them, and from all the Old Women I could meet with, which pretended to any thing of Physick, could seldom find any of them so irrational, as not to give some tolerable reason, and so much as satisfied me, that for the most part they had reason for what they did; and though perhaps their Discourse came not from them, cloathed with such delicate Terms of Art, as pass current among the Schools, yet giving them some grains of Allowance, I concluded they spake reason, and that their Method was right, because it was fitted to the Medicines they used, and both Method and Medicines so well agreed as to make Cures in many desperate Cases, left as incurable by others: And I must profess, that by observing the Practices of these, I have had opportunities to see more of Nature in her naked appearances and operations (as to the condition

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wherein she now stands in this present Age) than ever I could discover in all the Volumes that I have read. Therefore call men Empiricks, or what you will, because they are neither graduated nor incorporated, I shall ever esteem such to be most Rational, as make Art to follow Nature, rather than strain Nature and her Anomalies to general Rules of Art, and who seeing Nature degenerated into Extravagancies never known heretofore, do endeavor to find out new ways and Remedies to deal with her : which he that adheres to that old Philosophy, which is usually made the entrance into Physick, will never be able to do.

I confess this Writer hath had good luck to receive such light from the reasoning and receipts of sage women. I have for the best part of twenty years been perhaps as curious as another in the perusing and examining what I have met with

with in that kind from any of them, but could yet either never or very seldom discover any good thing in any of them, but generally found, they were the prescriptions of some Physician, which he appointed for some particular occasion and Patient, and after being transcribed into their receipt books, have become of universal appointment to all bodys, all constitutions, and all tempers, which by the Authors thereof were not intended to have their operations to so large an extent; and hardly one of their Chymical preparations (but ordinary drinks or decoctions) for which he onely contends, & for their sake would overthrow all other Physick, both in its foundation and method. But in this place, lest he should seem to speak without book, he draws in *Hippocrates* to be of his party. In his ΠΑΡΑΓΓΕΛΙΑΙ, at the beginning of his book, where he gives directi-

ons to Physicians, how to demean themselves, he commends ratiocination that is joyned with exercitiation, μη λογισμῷ πρότερον πιδανῷ προσέχοντα ἰητρεύειν. ἀλλὰ τειβῇ μεταλόγη. then tells you that Ratiocination is a kind of memory, that compounds and puts together what are obvious to the Senses. He then soon after hath these words, ξυγκαταίνω μὲν ἔν χῃ τῷ λογισμῷ ἣν πρὶν ἐν πειπλωσι τοῦ ποιῆται τῷ ἀρχῇ, χῃ τῷ καταφορῇ ἐν τῷ φαινομένων μεθοδεύειν : Which words I must thus render: *Simul etiam approbo ratiocinationem, licet ex fortuito casu originem sumpserit, & impetum vel morbum dirigit methodicè ex apparentibus*; his meaning is this, that he approves of their ratiocination, notwithstanding it had its beginning for some accidental chance, provided their reason be directed according to the appearances of the disease. *Mercurialis* renders the words thus, *Collaudo quidem igitur etiam ratio-*
cina-

inationem si ab experientia principium facit, & comprehensionem ex apparentibus dirigit. The difference is not great, if by *experientia* he meaneth *casus fortuitus*, to wit, a Medicine found out by chance, for so *πειρίλασις* signifies, and was taken up by Empiricks for any Medicine they fell upon by chance or accident, so that *experientia* is by *Mercurialis* no more but *πειρα* a trial, and by *comprehensio*, he understands that *lapsus* or *impetus*, by which the man is overtaken, for so the word *κατάφορη* signifies, or a disease. Then after the interposition of some lines, he tells you, *σφαλερὰ γὰρ ἡ εὐπταῖς* & *ἢ μετ' ἀλογικῆς ἰσχύσεως*: That is, that a garrulous asseveration is unsafe and subject to error; he subjoyns those words quoted by our Author, *μὴ ὀκνεῖν ὃ καὶ παρὰ ἰδιοτῶν ἰσχυρῶν, εἰ τι δοκέει σύμφωνον εἰς κατὰν θεωρίαν.* That a Physician should not be backward to hear the

26 Hippoc. rule most safe for all.

the discourfes of ignorant perfons, if they knew any thing profitable for the cure of the difeafe. So that tis clear, that *Hippocrates* here joyns Empirical Medicines with Rational discourfes, tells you that reason is to compound and affume one thing after another, that being divided garrulous affeverations are unfafe and erroneous, whereas our Author diflikes the diftinction between Rational and Empirical, and undoubtedly would reduce all Phyfick to the laft, to wit, of hazardous trials grounded upon every mans fancy and humor, and the application of all Medicines to all at random.

What *Hippocrates* advifes all Phyficians in this, will willingly be allowed : Why do we otherwife read books ftuffed with Medicines and Receipts, but that we might ground our felves upon the experience of others, and then
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use our own reason and judgement.

Pag. 14. He tells us that *Regius* has reduced all Physick unto the knowledge and curation of diseases; whereas tis evident that *Regius* under the knowledge of diseases comprehends all Physiology; and though he disapprove the common doctrine of the manner of the composition of bodies by the four Elements, yet he lays down another kind of Philosophy, following the Method of *Descartes*; and whosoever shall read him will find the knowledge of his Physiology will be as necessary to the right judging diseases, as that of the Ancients is by others now esteemed; and though peradventure the knowledge what the disease is with which a Patient may be troubled, may many times be obvious to the Standers by, as where an intense heat, a high-water, and a quick pulse meet, tis ordinarily
judg-

judged that a Fever is there (for which part of knowledge they are yet beholding to the preceding directions of Physicians, and the often return of like sicknesses) yet what kind of Fever it is, whether *boni* or *mali moris*, whether *Idiopathical*, or *Symptomatical*, upon what accident it did invade the body, requires many times the use of our best reason, and not presently upon the knowledge of it run upon the general cure of a Fever, as this man aims at by his so much commending Ignorance and Empiricks.

Pag. 17. He tells you *Fernelius* speaks but lightly of Anatomy; and in another place *Galen* of Herbs. Tis true *Plantius* tells you in the life of *Fernelius*, that he disliked those that did *ad extremum usque senium desudare in evolvendis anatomicis libris & in cognoscendis simplicibus medicamentis, nullum interim agrum inspicientes*
nec

nec quæ à veteribus prodita sunt in agris observantes. He dislikes the spending a mans whole time in reading Anatomy, of which he saith there are as many and as discrepant, as there are diseases; and spending your whole time in that employment without visiting the sick, and taking notice of the observations of the Ancients; but advises you to read diligently some one of the best, both in Anatomy and *re herbaria*, since a mans life is not sufficient to read all men. What slighting is here of Anatomy, of which he himself writ a Tractate? Tis true he advises men not to lose the end of Physick, the easing of sick persons, by standing altogether upon circumstances and things precedaneous to it. I need not here enlarge my self in the commendation and necessary knowledge of Anatomy, every days experience makes it evident that he that goes about the cure of
dis-

30 Nor certain cure of diseases.

diseases, without a competent knowldege therof, goes wildly and absurdly to work; which way had *Galen* cured a lame foot, by applying his Medicines to the back, had he not known that the Nerves that run down from the sixt *Vertebre* of the *spina dorsi*, had there their rise? How can any Surgeon with safety so much as let blood, or make an issue, that knows not how the Arteries, Tendons, and Muskles lye? And certainly the Art is exceedingly beholding to those persons, whose industry and inclination gives them time and will to enquire more curiously into these things.

He that shall read *Harveys* works, *Dr. Glissons* Book *de anat. hepatis*, *Dr. Wharton de glandulis*, *Pecket de vasis chiliferis*, and others, will find how much the world is beholding to them for their pains therein, and the Art enriched by their discoveries. I must needs say
of

of Anatomy and Botanicks, what I have often thought of the general Study of the Mathematicks. Without the knowledge of Astronomy we should in a short time lose the account of Time, Navigation, the knowledge of the Stars, the foretelling Eclipses and many other things of most necessary use would be soon lost with mankind. So without Geometry, the measure of all things would be forgotten, Surveying, Architecture, both Civil and Military, and many other things, insomuch, that were their knowledge of as particular an use, as it is of general concernment, those professions must be the only rich and admired of the world. But the misery is, that the Learning of some few men in those Studies, is able to supply the necessities of a whole Nation. Tis just so in Anatomy and Botanicks; the curious and useful speculations of some few, are able to give a competent

32 M. N. *Distinction venomous.*

petent stock of knowledge to all others, without wholly taking them off from their more necessary employment in the cure of diseases.

It shall suffice to have marked these things in *transitu*, by which it may appear how unjust his dislike of that distinction of Rational and Empirical is, and may serve to shew the venome that lyes scattered through his whole Book, and ease me of some labor hereafter in the answering the rest of it; and having thus shewed you what liberty in the profession of Physick was taken by the Ancients, and allowed by all others; and how unjust and noxious to mankind an Empirical and Tentative way is, I might here make an end of the consideration of his first Chapter, did he not call me into the lists again from a new Topick, not yet by me taken notice of, though at the very beginning, *That tis a mat-*

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ter out question, that diseases of this present time are of another nature than they were in former times (and undertake to prove this) and if that be once proved, then it cannot be denied, we must proceed by other definitions of their nature, and indagations of their causes, and invent other remedies, reasons, and rules of curation, than have been delivered by the Ancients. I must acknowledge, *hoc magnum quid sonat*, if he make this good, he and I must shake hands, and be no more adversaries. Let me examine his words; *Of another nature*. By nature here he cannot understand some circumstantial change or alteration in the subject; as for the purpose, a Fever in *Peter* may differ from that of *Paul*; for this will not put us to new Definitions, new indagations, new Aphorisms, new precepts, and in sum, of a general new Method, and he cannot be ignorant of that trite Maxim, *aliud est*

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curare

curare morbum, aliud curare Petrum & Paulum. He must therefore understand, that either those diseases which were known to the Ancients, are wholly lost in the world, and New sprung up again in their room, or that those which were known heretofore, are now quite changed to another sort and nature. I ask therefore, whether Apoplexies, Fevers, Catarrhs, Epilepsies, diseases of the Ears, Eyes, Teeth, and all other treated of by *Hippocrates, Galen, Avicenna*, and the rest, and now frequently invade mankind, stand in need of new Definitions and new Curations from any alteration of their nature? If he say yes, I then ask from what cause this change can come? for if the Disease be in this manner altered in nature, it must necessarily follow that the Bodies of all Men and Beasts which are the subjects of them are altered in their nature, as it must likewise follow, that all Meats,

For all Materials the same.

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Meats, Drinks, Fruits, Herbs, and all things that serve for the nourishment of mankind are altered likewise in their nature: for it is unreasonable to believe that the same natural agent doth not act alike at all times, *ceteris paribus*, and consequently, that all distempers that arise from the inordinate use of those things that should nourish the body, or from any other disorder in the use of the six natural things, are the same still, not altered in their nature, and so not standing in need of new Definitions, &c.

Nay would it not be considered whether this new Doctrine doth not introduce a Transmutation of Species? for perhaps it will be as easie to change the Species of mankind, as his Nature, and so a Mans body become that of an Ass, as *Pythagoras* thought of the Soul. Does he mean that many persons now adays in respect of the Com-

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plica-

Mixt Diseases change not natures.

plication of one disease with another, require a different way of treating them than formerly they ought to have had in the same cases? If he mean so, tis absolutely false: for where there is the same Complication, the same method in the cure which hath been successfully used heretofore, may undoubtedly be used again. But in this I would not be mistaken, as if we were necessitated to tread in the steps of our Ancestors in the use of those very Remedies by them prescribed (which this Author would fain perswade us, is the opinion of the Dogmaticks) since never any diseases (I believe) either simple or complicate, did twice so correspond in every circumstance to any observation, that there was not latitude enough left to the Physician to make use of his best Judgement and Reason in the selection of his remedies, and attempering them to the dispositi-

M.N. *meaning any way false.*

on and constitution of his Patient.

Or lastly, is it his intention to shew, that in this last Age of the world, there is a Complication of many new diseases not known to the Ancients, and now generally raging? This seems probable to be some part of his meaning from the whole scope of his three next Chapters, chiefly the fourth, where he endeavors to shew, that there is now a complication of the *Lues venerea*, *Scorbute*, *vermination*, &c. and I know not what fermentation and seminal productions contracted either from new disorders, or brought by contagion from our Parents, which quite alter the nature of diseases

Should all this be granted him, of which there is not one part but is questionable; for he cannot but know that many grave Authors are of opinion, that the Scorbute and Pox were both known to the An-

2 *New discoveries alter not Nature.*

cients as well as Vermination ; he would from hence obtain no more than that liberty which *Hippocrates* took , and was never denied, to make use of his own judgement, as well in discerning as curing diseases. Neither have the late discoveries of the Motion of the heart, Circulation of the blood, the use of the parts ordained for the distribution of the Chyle over the body , and the Sanguification of it, any whit changed the nature of the diseases formerly known, or altered the method of their cure. As for the purpose , put case the Ancients mistook much in the office of the Liver , but found among many other , that *Agrimony* was very effectual in the cure of many diseases , whose seat they took to be there , called them Hepatick Herbs , which perhaps performed their office by deputing the blood , which was carryed to the Heart another way, and might there-

Let M.N. manifest Helmonts tricks. 39

therefore more rationally have been called Cardiacal; doth it hence follow, that their virtue is different in the cure of those diseases that are still the same, though peradventure we have been deceived in their seats?

But after this it may perhaps be said, that those diseases that have by the ancient method been taken away by Evacuation, *viz.* Purging, Bleeding, Sweating, Urine, or the like, may be taken away by some other way, different from any of those mentioned before, that is to say, by some Universal Medicine, of so great Analogy with the natural Balsame of the body, that the Disease shall be taken away by an insensible way of operation, which shall require none of the forementioned helps to be used. This indeed was *Helmonts* way, who by his Alkahest and Alterative, would cure most diseases without Bleeding, and seems to be the

mind of this Author too, who *Pag. 46.* tells you, *he would write a treatise of the mischief done by bleeding in most diseases.* Truly, if such an Universal Medicine be in nature, the Art would be extremely beholding to that man should discover it to the benefit of mankind.

But yet let him, who ever he be, consider, that this is not yet enough to alter the ancient tryed method, practised for many Ages, though it be another different from it; because there may be, and perhaps are, several ways of bringing to pass the same effect or end. If a man shall tell you by experience, and many years travel, he hath found it a good way from *London* to *York* to go by *Lincoln*, another by *Nottingham*, is the way to *York* altered by the one or the other method of bringing you thither? Just so tis with this great Pretender, the nature of diseases is altered,

but his unreasonable.

41

red, new indagations, new causes, ^{Pag 2.}
new cures must be found. Physick ^{Pag. 237,}
must be rebuilt from the very ^{238.}
ground, and have a new foundation, the Philosophical principles false, &c. In his seventh Chapter at large. So that we must cast off whatever our Reason and Judgement has found profitable in the cure of diseases, and preserving the health of mankind, and all this upon his bare testimony and unknown method, not backed with the authority of one Age. A man meets with a Porter heavily burthened, tells him, Friend, I see you laden, and faint under your burthen, I have an invention that if you put it upon your back will make your burthen seem lighter. Another tells him, Friend, I see you laden, I will take part of your burthen from you, and then you will easily master the rest; which of the two is likeliest to gain credit? The case is alike. A sick
man

man troubled with a Calenture, Pleurisie, or the like, in which the blood being inflamed, disorders the whole. One tells him, Sir, I have an Alterative Medicine will cure this distemper, as I have often tryed by experience, without Bleeding, or any other expence of time or Physick; another tells him, Sir, many hundred years experience evince, that by Bleeding, this disease of yours may be cured, and the other method is not more certain than this, and not backed with the like experience. Were he not mad should relinquish the first for the second? I very well remember a learned Physician, in a part of *France* where I then was, who upon the reading *Van Helmont de Febris*, resolved to quit the Ancient, and follow his New way by Alterative Medicines to cure all Fevers he there met with without letting his Patients blood; but 'twas accordingly observ'd, that

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in the space of six moneths, more had dyed under his hand, than he had been observed to have cured in many years before.

Forestus tells you in his observations *de Febre quartana*, of one in *Delf*, as I remember, that having been troubled a whole yeer with a Quartane, and in vain used the assistance of the ablest Physicians, was thus cured by an Empirick, He was advised to drink about a quart of very strong wine just when he expected his fit, and then to annoint his body all over with butter, and roast himself by a fire, enduring as much heat as he could possible. This Medicine cured him, and made him very jocund, and himself now become the ablest Physician for that disease in the world. It fell out, the next fall of the leaf his Ague returned, and he to his Medicine, but instead of being cured, was found dead the next morning; the Observer hath
this

this note upon it, that the Humor being the first time by much use of Physick, rationally applyed, well prepared, might give way to that violent remedy, which it would not do the second time when twice crude and unprepared. So fallacious and uncertain are their new ways, where the Ancient Method is rejected for another not more certain and less reasonable. We have lately seen how dangerous it is to shake foundations without erecting more firm in their room; and I wish these new Undertakers would before they discountenance the old, set us up a new body of Physick that might as well satisfy our judgments as tie our hands. But I have yet never been so happy to meet with two of them that agreed in the same Method, but every one pretended himself to be the most skillful and possessed of the most Universal Medicine of any other. One pretends to have an Uni-

Uni-

Pretenders onely agree, to cheat.

45

Universal Powder, another a Salt, another an Oyl, a fourth a Spirit, and he that is possessed of one of these, shall generally as much deery all the rest, as they shall all agree to deery the Rational Physicians; when in truth their aim is to cure onely their own Covetousness, that by disgracing others they might set up themselves.

Immediately after his demand of liberty of profession of Physick, from the alteration and change of the nature of Diseases, he falls upon Hippocrates, tells you, *he took a liberty by strength of Reason to judge and condemn the opinions and practices of such as went before him.* That he writ a body of Physick I allow, and such a one as hath been approved by the whole world, but that he condemns the opinions and practices of such as went before, this confident Assertor should have done well to have shewed us, till when this must be lookt upon as a
Calumny

Calumny he makes use of to fit his turn, for his greater end of disgracing the Art of Physick, except one of his own setting up; then he goes on and saith, *He may be called the Father of the four Elements, and of the four fancies called Humors; which our Hippocrates (as some call him) Doctor Harvey approves not, and allows but one.* How candidly he dealt with the old *Hippocrates*, we have had occasion to speak before; let us now see if he deal any better with the New one, as he terms him. He, after he had in his 50. Exercitation asserted against *Aristotle*, that the Blood, and not the Heart, was

• *Prima particula genitalis, itaque neque Aristoteli ipsi assentiri possum qui Cor esse particulam hanc primam genitalem & animatam statuit;* in his 51. Exercitation he handles it as it is *pars principalis*, shews, that before any thing else of the body is discernable, that the Blood hath
both

Dr. Harvey admired Aristotle,

both its birth and increase, backs this with the authority of *Aristotle* (of whom, by the way, no man was a greater admirer than Dr. *Harvey*, who hath often to my self said, who had the honor to know him many years, that he was the most rational and acute Philosopher that ever lived, that his writings were neer divine, that he never met with any thing in Philosophy, of which he met not some track in him) *Aristotle* I say in his book *De histor. anim. cap. 19.* hath these words, Σφίζει τὸ αἷμα ἐν ταῖς φλε-

βῖν ἐν ᾗ πασιν πάντῃ αἷμα τοῖς ζώοις· καὶ ἔστιν ἥ ὕλη μόνον καθ' ἅπαν τὸ σῶμα τοῖς ζώοις καὶ ἕως αὖ ζῆ τὸ αἷμα μόνον· πρῶτον δὲ γίνεταί τὸ αἷμα ἐν τοῖς ζώοις τῇ καρδίᾳ καὶ πλεονὴν ὅλον διαρροῦναι τὸ σῶμα.

That the blood always beats in the veins of living creatures; that tis the only humor that disperseth it self all over the body, and always lives as long as the body lives.

Bloud first disperſeth it ſelf.

lives. That it is firſt begot in the heart before the living creature is perfected. After this he falls upon that controverſie, whether the office of the Blood be onely for the Aliment of the body, ſaith, *Aristotle*, and all the School affirm it. The words, though long, I muſt tranſcribe. *Nec de altera controverſia (num sanguis ſc. nutriendo ſolum corpori inſerviat?) hic anxie diſputandi locus eſt. Ariſtoteles quidem plurimis in locis ſanguinem eſſe ultimum alimentum contendit, eideſque tota medicorum ſchola ſuſfragatur. Plurima tamen explicatu ardua malęque coherencia hanc illorum ſententiam conſequuntur. Cum enim Medici in Phyſiologicis ſuis agunt de Sanguine, atque hunc ſolum ejus uſum, & finem docent ut alimentum corpori ſuppeditet; eum ex quatuor ſuccis ſeu humoribus componunt; argumentum ejus rei a quatuor humorum combinationibus deducentes, ac proinde aſſerunt maſſam*

Sani sanguinis ex utraque bile (flavâ nempe & atrâ) pituitâ & sanguine propriè dicto componi: Ideoque quatuor humorum genera recensent; quorum frigidus & humidus Pituita dicitur, frigidus & siccus Melancholia: calidus & siccus Bilis, denique calidus & humidus Sanguis nominatur. Porro ex singulis eorum generibus alios Nutritios (unde totum corpus constat) Excrementitios alios statuunt. Præterea ex nutritiis illis (seu partibus heterogeneis) Sanguinem constare autumant, ita tamen ut Pituita sit pars crudior, quam calor natus validior possit in Sanguinem laudabilem convertere. Bilem vero in Sanguinem transire posse negant, licet Sanguinem facile in Bilem atque hanc in Melancholiam (nempe à caloris concoquentis excessu) mutari, affirment.

Quæ si vera sunt, nullusque in iis regressus conceditur; scil. de Melancholia in Bilem, de Bile in Sanguinem: oportet fateantur dictos omnes

E

succos

An Sanguis Alimentum.

succos esse in ordine ad Melancholiam, atque hanc esse principale, & maxime concoctum nutrimentum.

Quin etiam duplicem Sanguinem agnoscant necesse est: nempe totam simul in venis massam, ex quatuor illis humoribus compositam, & partem ejus puriorem, florentiorem, magisque spiritalem, quam strictiori sensu Sanguinem nominant, quamque aliqui in arteriis separatim contineri contendunt. Ideoque ex eorum sententia Sanguis purus non est alimentum, sed commixti succi, sive potius Melancholia, ad quam tandem reliqui humores pertendunt. The question he handles in this is nothing at all concerning the number of the Humors, but whether the Bloud serve onely for the nourishment of the body, and whether it be the last alimient; tells you, that the whole School of Philosophers and Physicians affirm it; tells you, there are some things hard to be explained; saith, that Physicians
who

Humours pass not into Blood.

51

who make its office be to supply nourishment to the body, compose it of the four Humors, Pituitose, Choler Yellow and Black, and Blood, to wit pure; that those Humors cannot have any return unto Blood, though the Blood may easily be changed into Choler, and that into Melancholy; and then assumes, If these things be so, and that it be true that there be no regress from any of the Humors into pure Blood again (neither of which he positively affirms) that these things will then follow, that Melancholy is the most concocted nutriment; and next, that there are two sorts of Blood, one most pure, the other composed of the four Humors; and that pure Blood is not alone the aliment of the body, but the commixed Humors, or rather Melancholy, to which the other tend. I confess I see not here *nec volam nec vestigium* of the denial of the Humors, nor any

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The Nourishing Juice.

absurdity, either in the affirmation of the Schools, or incoherence in his assumption from what they say. He that saith, that Blood consisting of the four Humors, doth supply the *ultimum alimentum* to the body, doth not say any one alone of them separated from the rest doth supply any aliment at all, no more than he that shall say Bread doth nourish, is bound to affirm that any one constitutive part of it, or any *res contenta* in it separated from *re composita*, doth so; for that may be true in *toto composito*, which is not true in any one of its parts separated from the rest; so that that part of Dr. Harveys assumption will be easily granted, that Pure Bloud alone is no nutriment to the body, but the whole mass as it is conjoynd with the Humors, that is, as he calls them, the *commixti succi*.

In the next place he doth truly assume, that if there be no regress of any of the Humors into Blood back again, and that Melancholy be the last, it will truly follow, that it is the most concocted, but not that it is the best concocted, for 'tis over baked, (*nempe ex caloris consequentis excessu*) so not the principal and chiefeſt nutriment, as he ſeems to affirm, though it be the laſt acc. to *Aristotle*, but doth not follow from the Opinion laid down by the Schools. But pray what is here againſt the Four Humours? Doth he that ſaith Melancholy is the laſt and moſt concocted; and to which the other Humours ſeem to tend; doth he ſay, there is but one, (nay, doth he not the contrary rather?) Or if they tend to that Humour, do they tend thither to be ſwallowed up by it, or as they may ſtand together *in compoſito*? Yet by the way 'tis to be ob-

E 3 ſerved,

served, that neither Dr. *Harvey*, or any other, by Composition do understand the Humours to be *Principia Sanguinis*, for that were to confound them with the Elements; whereas they knew, or at least thought they did so, that every one of those Humours were compounded of the four Elements, and were Mixt bodies: but by Composition they understood onely they were there, or things contained in the whole. So that for ought I see, the later *Hippocrates* doth not at all fight against the first, but leaves him to justify himself upon his own Reasons largely deduced in his Book, ΠΕΡΙ ΦΥΣΙΟΣ ΑΝΘΡΩΠΟΥ, which Book I wish this Author had well read before he had taken upon himself the liberty to call the Four Humours Fancies, or any book of *Hippocrates* Vain, as he doth that learned book of his περὶ ἀρχῶν. pag. 243. and in another commends that saying

saying of *Helmont*, who calls *Galen* the great Corrupter of so much as Pag. 240. was tolerable in *Hippocrates*; words too big for the mouth of such a Mustrom as he is in respect of *Galen* in all parts of Learning: but I shall onely say this of him, that 'tis much easier to revile a man that is dead, than to have met him in the Schools living.

I might here very well take occasion to examine the ancient Doctrine both of the Composition of bodies out of the four Elements, as that of the Humour and Combination of the four Qualities, but that I shall have a fitter opportunity for that purpose, when I come to examine his Seventh Chapter.

*The Examination of his Second,
Third, and Fourth Chapters.*

I Shall consider these Chapters together, because their Subjects are not much different, being onely subservient to prove the necessary alteration of the Precepts of the old Physick, and the pulling up the Foundations thereof, from the alteration of Diseases now from what they were anciently, and that in respect of Worms, (that of Worms I shall consider in the first Chapter) Fevers, Womens diseases, the Scorbute, Pox, and some other. In which I would have it observed, that if he had done all this he pretends, yet the Shooe would be too short for his foot, since these Diseases would still remain the same in their nature, and the alterations require onely a difference of Remedies

medies in their Composition, not either in their substance or nature, and so would not put us to new Precepts and new Foundations, but onely to raise some Superstructure upon the old. But I believe we shall find him fail in all his attempts.

His first instance is in Agues. These, he tells you, *give the baffle to Physicians, being distempers quite of another nature, insomuch that the old Rules and Remedies for the curing them are quite out of doors, seldom doing good, but generally hurt: as for instance, Bloud-letting, which should we in these days administer in all Putrid Fevers, (as Galen directs, and too many follow) we should make mad work with our Patients, &c. And then hath a sting at Avicenna, who gives the same precept if the Urine be thick and red.* Against all these Directions of the Ancients he onely opposes a new sort of Quartan in the year 1662, which
had

Pag. 30:

had tokens of Malignity, and some others in the years 1657 and 1658. both in the Spring and Fall of the year, and in the Autumnal quarter of the other; in which are these words, *Whereas I have observed generally in former years, (and particularly in this Spring) that bodies either ill-habited or scorbutically inclined, being phlebotomiz'd for Agues, have grown very much worse upon it, &c.* — Then follows a mis-translation of Sennertus his words, *Plurimæ febres quæ hic agros infestant, omnes notas februm à Græcis & Arabibus descriptas non obtinent*: by him thus rendered; *Most Agues which infest men in this age, do not agree with the description of Agues made by the Greeks and Arabians.* Very good. For the first part of it, viz. that Agues are altered, we have his word and observations in the years before mentioned, that the ancient Remedies generally hurt, particularly
 Bloud-

Bloud-letting, as he generally observed in former years, and particularly in this Spring. To this I need make no other Reply, than that other Practisers, as much in credit, and far more judicious, have not made the like observations; that if he hath found Bloud-letting so dangerous in his Patients, he ought rather to mistrust his own preposterous application of that remedy, without preparation of the Peccant humour before hand, if the Fever were free from Malignity; if Malign, perhaps his using that remedy after the Malignant humour was too much diffused, by which the veins being emptied, drew poison instead of good bloud from the greater vessels, and so transfused the Malignity all over the body more than it was before; with many other cautions fit to be observed. In the Precepts of the Ancients two things are to be taken

ken notice of ; First, that they are given as Directions to Physicians, not Mountebanks; that the first shall seldom miss, the last as rarely hit, in the pursute of them. Secondly, that as to the matter of Bleeding, we are to consider that they framed their directions according to the constitution of the Inhabitants in those Countries, where generally drinking Wine, their bodies were more easily inflamed. I wish this *London-Physician* would travel over *Spain, Italy, France,* and other hot Conntries, and see how many Profelytes he shall gain unto this new Doctrine : if I be not deceived, he will find himself laughed to scorn. Nay, in our own colder Country, I am very confident that remedy of Bleeding in persons Scorbutically inclined hath been many times successfully made use of. I love not to brag of my own Knowledge or Practice in Physick, I know they
are

are both very inconsiderable in respect of many others; yet this I must avow, that I was a Practiser in those very years by him mentioned, have had to do with some Aguish and Scorbutical persons, and in some have let bloud, in others forbore, as my Judgment led me, but never had that misfortune to turn a Tertian into a Quotidian or tedious Quartan. But lest he should be fully without shew of Authority, he rather chuseth to mis-allege *Sennertus*, whom he makes to say that most of the Agues now adays agree not with those described by the Greeks and Arabians; whereas he saith onely, that Agues now adays have *not all those marks* that are recounted by the Greeks and Arabians: there is a great difference between *not having at all*, and *not having all*. Does he believe that their Descriptions were made upon the disease of one or many men? or did he ever know that

that all the marks of any one Disease were at any one time found in the same man? Let him take for pattern the Scorbute, and tell me whether he ever found all the signs described by *Engalenus*, *Rensnerus*, *Sennertus*, *Johnstonus*, *Riverius*, and others, in any one man. Doth he not know that some Agues are exquisite, some bastard, and sometime complicated, and so all the Marks never or rarely to be expected to meet in any man? 'Tis enough that the *signa idiopathica* are found. When found he in an Intermittent Ague, where there was not a preternatural Heat, an inordinate Pulse, or Horrour, or some one of these, if perhaps the Urine might deceive him?

His next step is to shew there is a great alteration as to the severe Symptoms now happening to Women in their several Diseases; but this he passeth over without giving any reason, so shall I by the bare

bare denial of it; not but that 'tis very easie to shew that most of what happens now to any of that Sex, hath formerly been upon them with as great severity.

The French Pox comes in the next place, much altered, he tells, from what 'twas at first; but as it appears by all his Quotations out of *Fracastorius*, *Fernelius*, and *Sennertus*, less malignant than at the beginning, and now frequently taken by Contagion without any act of Coition: then he instances in the Scorbute and Rickets. Admit all these had those variations and alterations he contends for, what is this to the overthrow of Physick, and the Precepts of it? Either these Diseases are new, or old; if new, as some hold the two first, others doubt, certainly we shall onely need Descriptions of these Diseases, and Methods to cure them, which the Ancients could not give if they knew not the

the Diseases in so particular a manner. Yet will not the general method of curing Diseases teach us to judge of the Parts affected, the seat of the Disease, and so apply Remedies? How was the Cure at first found? by Revelation, or reasonable Discourse by Learned men among themselves, and then Experience grounded upon Reason? Lastly, if the two first of these Diseases were unknown, the first in *Europe* till the *Spaniard* brought it from the *Indies* to *Naples*, and infected the *French Army* in the year 1590; the later a Disease peculiar to Islands, and probably first brought in by Seamen, used to hard and salt meats: doth it thence follow, that no men knew them till we did here? Was the Pox new to the *Indies* who gave it the *Spaniards*, how then had they so readily the cure of it? No certainly; 'twas of standing long enough there, and perhaps upon good examination

Sen. de lue
Ven c. p. 1.

mination will prove to have been in those hot parts but a kind of gentle Leprosie or dry Scab. Very much of kind with this is the Scorbute, and but four years difference in their birth, the first being a stranger in *Europe* till about the year 1490 and 96, as some think; the last known first in the Northern parts of *Germany* 1486, but not necessarily so in all the world: then will it fall out that these Diseases were not so very great strangers to the Ancients.

*Fern.
S. 17. p.
204. ex
Sp. ingent.
Sennert. de
Lue Ven.
cap. 1.*

'Tis not unknown to any man, that many learned Physicians have maintained that the French Disease was known to the Ancients; he that is curious may read what *Valesius*, *Rensnerus* and others have said as to that point, or look what *Sennertus* and *Fallopins* have collected out of them touching this subject; and though they both incline that the Pox doth not answer to those Diseases described by the

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And then common to the Indians.

Ancients, and known in those parts; yet *Sennertus* is very clear, that though it were till about that time before mentioned unknown in Europe, yet it had been a common guest in the *Indies* many ages before, and so not unknown to the Ancients wholly, nor by them thought of force for its sake to change the Body of Physick.

Touching the Scorbute, *Sennertus* doth with many very strong Arguments prove, that that Disease was known and described both by *Hippocrates* and *Galen*, though perhaps not in every thing and circumstance so particularly known as it now is. *Pliny* tells you, that when *Julius Caesar* passed the *Rhene*, this Disease was in *Germany*, and known by the name of *Stomacace* or *Sceletyrbe*: he adds further, *Reperta auxilio est herba, quæ vocatur Britannica, non nervi modo & oris malis salutaris, sed contra anginas quoq; & serpentes.* *Strabo* tells

Plin. hist. nat. cap 3. lib. 25.

tells you, that in the Expedition of *Ælius Gallus* into *Arabia*, *Hos morbos Arabibus ἀνθρώποις, populares esse refert, Strab. lib. 16. in expedit. Ælii Galli.*

I might have been very much larger in the deduction of the Reasons of the Authors before mentioned, and many others both of one and the other side; but I labour to be short, and not spend time in what (were it never so true) would avail very little to overthrow the general Method of curing Diseases, because every day new ones may come up.

Rickets, Rising of the Lights, which he takes to be *Hysterica passio*, Convulsions, Measles, Small Pox, and Scorbutical Gout, come next into play. Touching the first, whence it came, where its seat is, and a rational way of the cure of it, let the Reader consult the lear-

ned book of Dr. *Gliffon* on that subject. The rest, because there was no colour for him to make them strangers to the Ancients, they must from the great alteration they now have from what formerly, require new Precepts and new Methods for their cure. The great severity of these Diseases now a days more than heretofore is indeed most doubtily proved out of the weekly Bills of Mortality collected by Mr. *Grant*, and his own Observations, worthy proofs to overthrow an Art by: as if he knew not that in the world there can be no so fallacious a way of proof. Every one is enough acquainted with the Searchers, and their way of dealing, who regard nothing more than to give the general account of the Dead and the Born, and to let the World know when the City is infected with the Plague, with whom nothing is so usual, as to put one Disease for ano-

another ; Consumptions and Fevers are general names comprehending all sicknesses whatsoever ; and the mistake is in them no way material, the end being onely to inform the Magistrates what Malignant Sicknesses reign : and though that way be tolerable in Mr. Grant, whose design is onely to prove the Increase and Decrease of Mankind ; yet from hence to prove the Alteration and Severity of Diseases to the overthrow of all Rules of Physick, favours too much of Ignorance, Self-ends, or both. He comes after this in his third Chapter to inquire into *the Causes of the alterations of diseases from their ancient state and condition.* But till he had proved an Alteration, such as would be subservient to his purpose, in Diseases, I need not trouble my self to follow him in his Causes ; yet that I may not seem to pass by any thing he thinks material, I shall

trace him in those also. 'Tis observable that the subject of his second Chapter, that there is an Alteration in Diseases; the third Chapter pretends to shew the Causes of this Alteration, to wit, *The Pox and the Scorbute by their invasions made upon the universality of Mankind, have been the two main causes of this alteration.* What the meaning of these plain words is, may perhaps be a little intricate: for if he here understand that these Diseases are solitarily in most bodies, then certainly their presence cannot be the cause of Alteration of other Diseases that are not there with them. If he understand their Complication with other Diseases makes such an Alteration as he contends for, so that a Fever, or what else, assailing the body already infected with the Pox or Scurvy, makes such an alteration, as must change the Precepts of Physick; this is the whole subject of his

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his fourth Chapter, and carries something of reason in it; but then the third Chapter is wholly useless, or as to those Diseases coincident with the second, and onely brought in to fill up room, and to bring in one whom he calls Doctor *John Winnels* Preface, and to call this a wanton, painting, patching, Pag. 69. perfuming, issuing age. Certainly all these Epithetes have been much more ancient than this age; let him look upon *Jezabel* in the Jewish, *Julia Messalina* in the Roman, *Rhodope Crissa*, of whom *Ansonius* speaks,

*Præter legitimi genitalia fœdera
cætus,*

*Repperit obscenas veneres vitiosa
libido.*

*Crissa tamen cunctas exercet cor-
pore in uno,*

*Deglubit, fellat, molitur per utram-
que cavernam,*

*Nequid inexpertum frustra hæc
moritura relinquat.*

F 4 Where

Where is Wantonness equal to that described by *Petronius* in a Woman? *Junonem meam iratam habeam, si me unquam virginem meminero; nam infans cum paribus inquinata sum, & subinde prodeuntibus annis majoribus me pueris applicui, donec ad hanc aetatem perveni.* What wantonness in this age ever answered that of *Messalina*? *quæ efficiebat ut multæ in palatio viris suis presentibus ac videntibus cum adulteris coirent.* What *Parvatis* was author of his Sons incest with his own Sister in this age? Where has Prostitution been encouraged or promoted by a Reward and Law? If in this, as in all ages, something be amiss, what has this man to do to upbraid the times, being neither Divine nor Magistrate, to whom the correction of Vices in any kind might belong? for though the words are taken out of the Preface of another, he that with applause transcribes

Ziphil.

P'ut. ia
Artax. xs.

scribes them, makes their Sordidness as much his own, as they were before the Authors that first writ them. And truly 'tis no marvel that men of light Principles should be of loose Tongues. He first tells us, in this age we have lost Philosophy, we understand not Physick, and now we fail in Sobriety and Good manners. After this large Preface, which hath given us the diversion of two leaves, he falls upon a discourse by what means *the Venereal and Scorbntick Miasms* have gained ground in the world, to wit, by Carnal Contact, ill Cures, accidental Contagion, hereditary Propagation and Lactation, and is large upon every one of these heads. To what purpose all this is, and how it will serve his turn, I see not, except to usher in their complication with other Diseases, which is the subject of his next Chapter, as I touched before. The Propagation of this *Lues* by Carnal

Pag. 61:

Carnal Contact he passeth over to insist upon a truth of much importance to be laid open for the security of mankind, viz. That after the committing that folly with an unwholesome person, though there appear no sign nor symptom of a Disease for the present, yet it may lie latent and lurking in the body many years before it make any discovery of it self, either in its own nature, or in the disguise of other diseases. And in another place tells you, that it may be in the Father, lie quiet in the Son, and at last discover it self in the Grandchild : and whatever he saith of the Pox, he would have you understand of the Scurvy also. This he proves from prostituted Women, who having long lived in that wicked course, have infected many others without being privy to any illness in themselves. In which Assertion he begs two things which are impossible for him to prove ; first that those persons

sons were not privy to the knowledge of any Infection in themselves, notwithstanding they impudently enough might say they were not. For truly 'tis not hard to believe, that those persons that will lie with their Bodies in those unjustifiable ways, will also lie with their Tongues when 'tis for their advantage, either to make themselves appear more innocent, or their Copesmates more confident. Secondly that the Infection given to so many persons hath proceeded from a Disease long latent, or perhaps one newly taken. I much fear, that Men and Women so given, keep not themselves so constantly to the same person, that they can tell either when they give or take Infection, till by the succedaneous effects it discovers it self. Something more reasonable might have been urged for him, were he able or any other to prove, that those hundreds infected,

ed, as he saith, by the same common Woman, had never touched any other from whom they might possibly as well take it, as from her that did not know her self infected. From this he passeth to examine the reasons *why some that practise that wickedness, most of their days seem sound even to old age;* and there gives you a large transcript out of one he calls Dr. *Winwell*, which being no may material, though in some things not true, I leave to the consideration of those whose time and leisure will give them the liberty of a more serious examination of this Writers extravagancies. Onely let me remember, he omits the main cause why men guilty of that wickedness escape sound, *viz.* their frequent taking Physick for the expelling that Contagion they suspect may lie in their bodies, though they find it not in any effect. And as he directs me what here I have spoken of

of the *Lues Venerea*, may be also understood of the Scurvy, *mutatis mutandis*; onely by the way let it be observed, that he conceives the Contagion of the French Disease less apt to be communicated than that of the Scurvy; for pag.65. & seq. he gives you many reasons why some sinners in one kind are not at all, or know not themselves infected; but in the Scurvy he tells you pag.75. *That whereever either of the mates is Scorbutically tainted, the other never escapes, but catches the taint more or less, &c.* 'Tis prettily boldly asserted; *Never escapes!* What Aphorism of *Hippocrates*, that he so much carps at, is so general? yet this Pigmy must be believed, or he will take it ill, without reason and without experience, when *Hippocrates* cannot upon both. Pray why may not those reasons taken from the difference of Constitution, the difference of Temper, the strength of the Body, used

used by him for assailing men of the Pox, be used here in the Scurvy, since by himself they are so near of kin? Or let him tell me what difference there is between *not being*, and *not being discovered in its own colours, but in the garb of some other disease*. Pray how shall one know that any Disease, that appears in its own garb, hath any of the Scorbvtical taint in it, except there be also some Scorbvtical colours appear? unless he would have my faith as large as his, to wit, that whereever the one *Mate is Scorbvtically tainted, the other never escapes*; for then whatever Disease may be, we are sure the Scorbute is with it. But we have a caution here to check any opposition to this, *viz.* Let him first observe *the course of things* before he oppose it; so that his Answer is ready, Dr. *Twysden* opposeth this, but he hath not observed the course of things. Pray, Sir, what course,

course, or what things do you mean? they are both of very large extent, and you know *Dolus versatur in universalibus*. I conceive the course of things to be observed must be something concerning the disease of the Scurvy, or else you speak not *ad idem*. If in that Disease, then what period of it is most observable, or to be taken notice of? The Beginning cannot, for you say pag. 75. sometime it discovers not it self at all, the progress nor the ending cannot oftentimes, for it sometimes discovers not it self (you say) in its own colours, but in the garb of other Diseases; and the discovery of it self in its own colours, and in the garb of other Diseases, are by you contradistinguished: so that except when it discovers it self in its own colours, which sometimes happens not, it cannot be observed at all; and therefore that Caution, either altogether, or in the greatest

greatest measure, is useless and unprofitable. For my part, I have been for some time an observer of Diseases, both in their beginning, growth, and termination, and must agree with you, that the Scurvy is very frequently at the beginning or end of most Chronical sicknesses in our Island-bodies, and that the *Lues* is likewise very general, but cannot subscribe to that Opinion, That their Infection is so catching, that all the World must needs be infected at so easie a rate without Contact, by the Emanation of I know not what Effluvioms, invisible Atoms or Bodikins, as our *M. N.* loves to call them, *pag. 97.* (rather than a subtil Vapour, which being sucked in by our breath, may poison the body though it operate not presently :) whenas he determines not their Sphere of Activity, nor at what distance their noxious qualities shall cease. *Sennertus* in reckoning the manner of the Scorbutical

Pag. 99.

butical Contagion saith, Indeed it may be taken per semen & sanguinem maternum, vel lacte instillari, aut alio modo per contactum & conversationem, pocula (scil.) ægotantium usu in bibendo præcipue inquinata; oscula etiam, ut nonnullis placet, aut aerem exhalationibus, expirationibus, & fætidis halitibus, ægorum infectum inspiratione attractum communicari potest. Here you see is but a nonnullis placet when the Communication comes either by Kissing, which is a Contact, or by the noxious Vapours taken in with the breath. Nay further, Censent etiam nonnulli per Venerem communicari posse Scorbutum, si (scil.) vir cum feminâ Scorbutica, fluxu albo laborante, concubuerit. You see here is but a Censent nonnulli, and then too a Circumstance required which seldom falls out, that Men or Women have any Communication when the Woman is so disposed. So far you see is this learned Author

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Med Prac.
ri. lib. 3.
pari. 5. ca. 3

thor from *M. N.* his confident Affe-
 veration, That whereever either
 of the Mates is Scorbutically tainted,
 the other never escapes, &c.

You have thus heard the Opinion of *Sennertus*; in *Forestus* I find nothing at all touching the Contagiousness of this Disease; perhaps he hath mistaken his words, as he hath the sense of *Sennertus*, *Horstius*, and *Reusnerus*. But because I would use him with all civility, let us examine what their Opinion is touching the Contagion of the *Lues Venerea* at a distance. But there is an unfortunate rub lies here in his way, which he well knows not how to balk, *viz.* That *Sennertus* in other places of his book is so gross, as to deny its Communicableness at a distance, as other Contagions are, &c. I wish he had shewed us those places where he saith, that Contagion may be taken without Contact. I am sure where he
 handles

handles the Question purposely, he determines the contrary: *Hoc tamen concedi non potest, quod sicut pestis per aerem & loca dissita ad alios transferri potest; ita etiam Lues Venerea communicari possit. Experientia enim quotidiana testatur, Medicos & alios multos cum infectis hac lue familiariter conversari, nec tamen ab iis infici. De Lue Ven. lib. 6. part. 4. cap. 4. pag. 503. edit. Venetianæ.* Forestus is of the same opinion, *lib. 32. observ. 2. Itaque Lues Venerea contagiosus est morbus, non sponte intimòq; corporis vitio, sed attactu solo contrahendus*: then tells you of a Priest, that was *adeo facie deturpatum, ut leprosus videretur, & carcinomate totius faciei infectus*; who being drunk, and finding a handsom Maid dancing with her Companions, kist her against her will, & *solo osculo eâdem lue infecit.* Certainly here was a Contact, and in all likelihood he hung so long upon her lips, to leave filth

enough there to beget that disease, without having recourse to these Bodikins and Atoms, which must infect at a distance by the *vehiculum* of the Air and I know not what *medium*. You thus see the Opinion of *Sennertus* and *Forestus*, of the same Opinion he is forced
 Pag. 126. to confess *Fernelius*, though his wit
 & 127. is in many other things divine, flies so low a pitch concerning the contagiousness of this disease, as to place it onely in humour and dull contact. Aurelius Minadous tells you, it ought not to be defined by *Quality*, but by name of a *Bodily Substance*, and that it so passeth from body to body by contact. A man would have thought these Authors had been plain enough, and I thought of Learning enough to express their own sense in significant words, but it seems they were deceived, and we too; for as to *Fernelius* he tells you, that in another place he speaks plainly to our sense, and quotes him
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De morb. contagiosis cap. 14. he should have done well to have told us a piece of news we are as yet strangers to, where *Fernelius* writes fourteen Chapters *de morbis contagiosis*. But I will let that pass, since the good man means well, and would have said *lib. 2. cap. 14. de abdit. rerum causis*, where he hath one Chapter *de morbis contagiosis*, the place he quotes is (in the last Edition put out by *Hackius*, 1645.) *pag. 212.* where besides his false translation of his words, *quod dum vident symptomata hæc omnia, cum humoris cujusdam vitio insultare, nihil præter humorem inesse putant.* Which he renders, *they think of nothing but humour*; whereas the Author means, they think there is no other matter in the disease, than the peccancy of that humour, and do not carefully search whether any thing else be latent under the cover of that humour so peccant, to wit, that

Contagious quality he then treated of; for I never before read, that *subesse* signified *to prevail*. But I shall let that pass, and onely observe, that in that whole Chapter there is no one word to contradict what he said before touching the *Lues Venerea*, but in his whole discourse instances the Contagion to come by Contact, and not *per additionem ad distans*. So Sennertus, whose words before cited, *Censent nonnulli per Venerem, &c. si (scil.) vir cum fœminâ Scorbaticâ, fluxu*

Pag. 13. *albo laborante, concubuerit*: he tells you Sennertus is very positive, where his words are, *Censent nonnulli, Some think*. Next by lying with a Scorbutick Woman, or with one that hath the *Fluor albus*: where doth he find (*or*) in the Text? Sennertus puts them both together, as if in the judgment of those *nonnulli* 'twere not enough to lie with a Scorbutick Woman, but she must likewise have that dif-

disease upon her, to make the Contagion to pass from one to another: where is now the *speaking* *home* of *Fernelius*, or *positiveness* of *Sennertus*? or what else is this but a corruption of Authors, and straining their words contrary to their sense or meaning? Yet that I may do him no wrong, though the foregoing Authors are not of his Opinion, yet *Zacutus Lusitanus*, the learned Jew, is otherwise minded. In his *Praxis admiranda*, lib. 2. observ. 125. he gives an Example out of *Manardus* his Epistles, of one troubled with an *Ophthalmia Gallica*, who infected his servant that waited upon him with the same disease; and therefore observes that that Disease is contagious at a distance. Our M. N. should have done well to have likewise taken notice of *Sennertus* his Answer to this Observation; first, that there is no Example but this of *Manardus*; secondly, that a

simple *Ophthalmia* is infectious, and therefore a Venerate may more likely. He might likewise have observed, that this Servant was always about him, wiped off his sweat, and undoubtedly dressed and washed his Eyes; so that here was, if not a direct, yet very near to a Contact. Besides, the diseases of the Eyes are more likely to be Contagious, than those that have their seat in any other part of the Body; because, whether Sight be performed by the intromission of *species* from the Object, or by emission of Rays from the Eye, or both, it must of necessity be granted, that the Eye doth receive Rays, or else one Eye could not see another, where one is necessarily the object to the other. Lastly, 'tis to be taken notice of, that this is *in praxi admirandâ*, and so much out of the common roade. Lastly, 'tis much to be feared that this Servant had got the disease
 some

some other way, but was glad to put off the guilt of his fault by laying it to this of Infection. Well, but it cannot be denied that there pass *effluvia* out of the body, *atoms*, *bodikins*, as he calls them, Pag. 141. not a Spiritual substance ; yet pag. 128. he tells you out of *Sennertus*, they are a Spirit or Spirituous substance, a thing of so subtil a nature, that it can make its own way through bodies without the help of immediate contact. If this last Assertion be true, the first cannot, and so farewell his Atoms and Bodikins, for certainly they cannot pass through bodies any way, nothing but a Spirit can penetrate Dimensions. Bodies or Bodikins, *σώματα* or *σώματα*, call them as you will, differ onely in Majority and Minority, and so can enter in at the Pores onely, and no other ways. Well, however 'tis manifest such Emanations there are, (and he is copious in proving what

Pag. 129

See *Winnel*, cap. 7.
fol 28.Where he
shews his
opinion to
be, that
this dis-
ease can
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tact.

what no man denies) as in the Plague, Spotted Fevers, Small Pox, Leprosie, Itch, and the like: if so, then he wishes some tolerable reason were produced why they deny it in reference to the Pocky contagion. Since the reason given by them, that the disease is lodged in a slow dull viscous matter, doth not please him, I will endeavour to satisfy him with some other. I would first tell him after his own language, that the Atoms or Effluxes that come from the Pocky body are of another figure than the Empty parts in the texture of the body, and so cannot enter into them. Perhaps the Effluxes that come from the sound body are more and stronger than those that come from the infected, and so purifie the Air, that it shall not be a *vehiculum* for the Contagion; as we see a Perfume will destroy a Stink. Whether these reasons are true or not, is not material; I am sure,

sure, according to his Principles, they are specious, and are sufficient Answers *ad hominem*, if they be not *ad rem*, and are urged by me to let him see how fallacious that way of Argumentation is, which is drawn from the application of Reason from one thing to another, contrary to Experience. 'Twere a strange way of arguing the Loadstone, which is a black heavy stone, of such a bigness and weight, will take up a pound of Iron; therefore every Loadstone of that bigness will have the same virtue, contrary to Truth and Experience. Just so 'tis with him; the Plague, &c. is infectious, and the Contagion passeth from one body to another, without any immediate contact; therefore every Disease that is infectious, as the Pox and Scurvy are, must do so too. Nay, he has the boldness to improve this Notion so high, as to tell us, no man never so innocent can be
Pag 130.
 secure

secure that he is sound : A Doctrine every way pernicious and unsafe ; for the innocent, it makes them upon every light occasion doubtful and suspicious of themselves ; the guilty, bolder and more impudent, being fitted with this lie in their mouth, However I am now tainted, 'tis not by my own fault, but the fault of my Parents, Nurse, or any other I have seen or conversed withall ; endeavouring by this cheat to vindicate their own Credits in the world. And thus this miserable *flagellum scortatorum* is made an Arrow to wound the innocent and excuse the guilty, who will be always ready to cast their disease upon that fine way of communication M. N. hath taught them, which suits not with the conceit of a brain that measures every thing by the gross Philosophy which Aristotle ties men to in the Schools, who teach men that Infection may be by Incorpora-

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real qualities insinuating themselves with the Air ; whereas in truth they are infected by invisible indivisible Atoms corporeal effluxes, as he saith Dr. *Flud* in his *Mosaick Philosophy*, and Sir *Kenelm Digby* in his *Discourse at Montpellier*, have made manifest, with some others. How far these Examples will warrant the efflux of Corporeal Atoms ; or whether the same effects may not follow from the impacting incorporeal qualities, and the dulness of *Aristotles* Philosophy, I shall have fitter opportunity to discourse of hereafter ; and I doubt not to shew, that this anciently-confuted and now lately-revived Philosophy, of making Atoms the beginning of all Bodies, and their flying up and down *in vacuo* not to be without great difficulties, and probably not true. This that hath been said I conceive abundantly sufficient to clear that part of his discourse concerning
the

The Pox not like the Plague.

the Propagation of the *Lues Venerea* and Scorbute by accidental Contagion, Hereditary Propagation, and Lactation, by all which ways I admit those diseases may be transferred from one to another; but deny, that either of them are so general as he would infer, or that they are transferred by such an infection at distance, as the Plague, Malignant Fevers, and some others, but must be got by Contact, or very near and frequent Conversation.

There rest now onely to examine his second cause, to wit, their Propagation by the ill-curing of them both. For my part, I shall never rise up a Champion to defend the ill-curing of any disease, much less either of them named; onely I would have him remember that of the Poet,

Carpere vel noli nostra, vel ede tua.

Pag. 76. He justly condemns the going for cure to any Pretender, amongst which

which number I reckon all Mountebanks, or such as take upon them the Practice of Physick without lawful Warrant thereunto; and then runs over the ordinary Methods, first of Issues, where by the way he should do well to observe his inadvertency, in calling this age by exprobration *an issuing age*; for if the Pox be so general, and this be one kind of cure, though it be but the Poor-Whores cure, certainly he ought not to blame the Age for taking any course to cure their Maladies. Then comes *Mercurial Unguent*, *Mercurial Cinabar fume by Salivation*, and inveighs against them all; notwithstanding he cannot but know they have been all successfully used by skilful men, and in unskilful mens hands the best Remedies will not succeed. Moreover, he forgets the Method used by *Fernelius* and most others by Sudorifick Potions, made with
Lignum

96 M.N. condemns all to exalt himself.

Lignum sanctum, Sarsaparill, China, &c. He touches not upon *Quercetans* Method in his *Consilium pro Lue Venerea*: Whether he approve these ways better than any by Mercury, I know not, or whether he hath any better of his own. 'Tis much to condemn all the Physicians in the world, and then leave us in the dark. Out with it, Man, tell the World if you know any better than others do: till then give us leave to think this onely an artifice to cry up your selves to the defamation of others, this is usual with the rest of your Gang, *Manwairing, Odowd*, and others, who pretend great things, but conceal what they are. In the Scurvy likewise he inveighs against Bleeding Specificks, and that ordinary way by which we find by daily experience that disease cured, if Judicious men deal with them. He blames the use of Pills, Infusions, Powders, Electuaries reputed *Classical*,

Let M.N. give his proper Medicine.

97

fical, and tells you, in all the *Pharmacopæus* he cannot pick out one Composition proper to purge Scorbutical Humours in so gentle and effectual manner as they ought to be: What if there be not? Doth not he know, that every Physician is able to be his own Pharmacopœist, and that those Books are rather made for the use of Apothecaries and Surgeons than them? But let us see; what thinks he of the *Pilulæ macri*, of the *Tartareæ Quercetani*, of the *Sal Cochleariæ*, *Absinthii*, and the rest? Cannot a Mals be made out of these proper enough to purge Scorbutick Humours? Pray, Sir, bless us with something of your own, that we may judge of your Abilities, and owe our Knowledge to you.

His fourth and fifth Chapters contain further Proofs of the Propagation of the Pox and Scurvy, by their being complicated with

H other

98 *Complication hurts not the old Rules.*

other diseases. Their Complication with other diseases he proves from *Forestus, Eustachius, Rudius, Sennertus*, and others: *Sensim in universum orbem est disseminata*, saith one, *maxima pars mortalium eo infecta est*. I shall not much contend with him in this particular, but easily grant, that there may be very frequently a Complication between the Pox and some other disease, that may render that other disease more difficult in the cure. But must this be enough to overthrow all the Rules of Physick, and put us to new Studies, new Foundations, and Medicines of another nature? Is the Complication of diseases but now known in the world? Did not all the Ancients as well as we know and consider it? Is it not left to the judgment of every Physician so to temper his Medicines, that they may answer to all Indications? 'Tis hard, I confess, to do that when the

the latent disease appears not in its own colours; for *De non apparentibus & non existentibus eadem est ratio*: and I confess, I shall still be of the Opinion, not to believe any disease in that body where I have no reason for it. I confess, it may make the matter suspicious, when the disease shall resist all ordinary remedies methodically applied; but then great care and heed is to be taken that things have been methodically done, and not run upon that unstable Notion, All men have the Pox by some of the ways this Author mentions; *this may have been in the Father, not appear in the Son, and break out in the Grandchild*: therefore if a man break his Shin, or cut his Finger, send for *M. N.* and he will put you into a course for the Pox. The like may be said for the generation of Worms. Do not all the Ancients almost take notice of them? Is not their generation in

the Body? nay, their Perforation of the Belly as ancient as *Avicenna*? let him look *lib. 3. Fen. 16. cap. 2. Et jam retulerunt quidam, qui viderunt eos perforasse ventrem, & exivisse ex eo.* I have in one person known the like, and I neither discommend his nor any mans care in taking heed that Worms do no mischief. His Experiments taken out of *Kircherus* I let pass, perhaps many of them are true, others I doubt much helped by the Fancy, as particularly that of Worms upon Sage. His third Experiment. I (not being content with any Glas of my own) *May 27. 1665.* went on purpose to Mr. *Reeves* house, a diligent Artist and Maker of those Glases, but after our diligent search neither of us could discern any such thing; 'tis true, we saw very easily and distinctly things long and sharp at one end, and blunt at another, as this Figure; other



other little Heaps or Points ∴∴∴
joyned together pretty near, ∴∴∴
but could perceive no motion
whatsoever; neither would they
at all be either wiped or washed
off: so that undoubtedly they
were onely the roughnesses of the
Herb, which by help of a good
Fancy may be supplied with Life
and Motion, and so made Worms
and Eggs. The later part I easily
believe, that out of the *Mucor* of
many Herbs Flies and Worms may
be generated; but why doth he Pag. 181.
call these Animated Worms, Efflu- & alibi.
viums, or Atoms? certainly they
are Compounded bodies, those
instruments that give them motion
are Atoms less than they, and cer-
tainly they are represented big
enough to be divided.

I have thus done with the Ar-
gumentative part of his book, and
have shewed his fallacious ways of
Argumentation throughout. First,
I have shewed that the nature of

H 3 Man,

Recapitulation of foregoing things.

Man, Beasts, Plants, Herbs, Fruits, and all things conducing to the nourishment of Man, are of the same nature; and therefore Diseases, at least those that were known to the Ancients, are not altered in their nature, nor the Method in the curing of them altered. That the discovery of new Remedies, if any have been, do not take away the virtue of those that were known and practised before; but both may be good and stand together: and that my Lord *Bacon*, and those other Worthy persons that have encouraged men to make further search into the things of Nature, and those Noble persons that have written and still labour in Experimental Philosophy, do not do it to disparage the Ancients, but search into the Reasons of the works of Nature, and discover new Truths, and establish the old by new Confirmations. I have in the second place shewed that the Pox and

and Scurvy, which this Author much insists upon, were not new diseases in themselves, though perhaps lately brought into *Europe*: that their Cures were found out by and upon the Foundation of the ancient Method, which is able to furnish a Physician not onely with means to find out the seat of any disease, but also to apply appropriate remedies thereunto. I have shewed in the third place, that the Complication of Diseases cannot alter the general Method of curing them, though it may cause a variation in the application of Remedies. That the variation of Remedies, according to the nature of Diseases in their Complication, is the Office of a Physician, who ties not himself to any Remedies delivered in *Pharmacopæus*, but ordering them *pro re nata*; and that 'tis impossible to give any general Method to cure any one complicated Disease, as it is lodg-

ed in *Peter*; because never any such Disease came twice alike in all circumstances, nor can any Remedy be found out (I am confident is not by this Undertaker) that shall have that effect. What the Chymists speak of their *sulphur fixum*, and their *Universale solvens*, which shall have that power; and also with some other help of Art shall fix an imperfect Metall into Gold: as I will not deny the truth of it, so will I suspend my judgment till I shall be better convinced. For all other Remedies, in the preparation whereof Chymists have laboured, I shall give them my ready thanks with much gratefulness of mind for their pains: they have many of them made their Medicines and Preparations publick, and daily use is made of them; when this unknown *M. N.* makes us partakers of any of his, better than what we know, I shall readily return him my due thanks; but

but must not believe some few
moneths study of Chymistry under
Mr. *Johnson*, set up by the Col-
lege of *London* for their use,
have made him so perfect an Artist
as to know more than his Teachers
in that Art. The pretending to
be Masters of great and universal
Remedies, and conceal what they
are, (a practice now used by
Odowd, *Manwairing*, and some
others) is a thing so unworthy a
Scholar, that I would not have
this Author so like a Mountebank
in any thing.

*The Examination of the
Sixth Chapter.*

THUS have I with all possible
brevity run over his first
Five Chapters, which in-
deed contain most of what is Ar-
gumentative in his book; I come
to the Sixth, which begins with a
recapitulation of what he had
for-

formerly proved. In the former we have had a taste of his Philosophy and Logick, we shall now try his Logick alone, and see whether the Conclusion drawn from the Premises now laid down be answerable to those of his first Chapter, where he argues thus:

If Diseases are altered in their nature wholly from what they anciently were; Then

New Indagations, new Causes, new Cures must be found, Physick and Surgery must be rebuilt from the very foundation. But Diseases are wholly altered in their nature.

Therefore in his sixth Chapter he argues thus:

If there be now introduced in Men and Diseases as it were another nature; Then

The former Rules calculated for Curation from other Causes, or from Causes less important, are almost, if not quite, out of doors.

But

And how faulty it is.

107

But Men and Diseases are as it were altered in their nature. Therefore the former Rules, &c.

Quo teneam tandem mutantem Protea nodo?

In the beginning of his book his premises were universal and general, in this place they are limited and particular. At the first there was a total alteration of Nature, now a partial, perhaps at the later end we shall find none at all.

But this is not all; we must find other infirm parts of his Argument. Certainly *Aristotle*, as dull as he was, would never have thus concluded, nor any man that had read or well understood his Analyticks, or the reason why they are so called. Where he first supposeth the Conclusion, which is the *Res ignota*, as known and true; and then infers it *ex veris & concessis*: so that if there be any thing in the premises which is not *verum* &

& *concessum*, then can the Conclusion be never truly inferred, and the thing sought concluded. Now (Sir) would I gladly see how you infer the consequence of your *Major*; what have we to do to leap from Nature to Causes? You ought thus to have assumed; If there be now introduced as it were in Men and Diseases another nature; Then Curations found out for Men and Diseases, which now are as it were of another nature than formerly, must be as it were changed. But Men and Diseases are as it were altered in their nature: *Ergo*.

But in this Syllogism both the sequel of the *Major* and *Minor* are neither of them granted; for there may be a partial and circumstantial alteration of a Disease, and if you will of a Man, without any alteration at all of the Nature of that Disease in its Cause, or the Nature of the Man in its Cause. (But certainly

certainly when we can believe the Nature of Man can be altered in its Cause, the next step will be to believe he may be altered in his *species* too.) May not a Fever that invades a Pocky or Scorbutick body have the same Cause, though in respect of the Complication there may be a partial alteration in the Disease, and consequently a circumstantial variation in the Cure? I admit that the Cures of the Ancients were built upon the considerations of Diseases in their Causes, but must not grant that the same Cause may not produce a Disease somewhat altered in circumstances. So that if it were granted him, which he hath no way proved, and is not true, that Diseases anciently known are at all altered in their Nature; yet would it not follow, that they were altered in their Causes. The whole Argument brought into form ought to run thus :

Major.

Major. If there be now introduced in Men and Diseases as it were a new Nature, from rebellion and alterations not known to the Ancients in their Causes, or taken notice of so fully as they ought to be by the later Physicians ; Then

The Rules of Curation calculated for Men and Diseases, now as it were of new natures from those alterations, not known to the Ancients in their Causes, or taken notice of so fully as they ought to be by the later Physicians, must be as it were altered and changed.

Minor. But there is now introduced in Men and Diseases as it were a new Nature from malignity and alterations not known to the Ancients in their Causes, or taken notice of so fully as they ought by later Physicians.

Conclusion. Therefore the Rules of Curation calculated for Men and

• *And its force evident ; unproved.* IIII

and Diseases, now as it were of new natures, from alterations not known to the Ancients in their Causes, or taken notice of so fully as they ought to be by the later Physicians, must be as it were altered and changed.

'Tis evident here, that the whole strength of his Argumentation depends upon the introduction of a new Nature into Men and Diseases ; so that till that be proved, 'tis not at all material to enquire into the Causes of this change, nor whether the Ancients knew them or not : but certainly he is very far from having proved either a total or a partial alteration of Men or Diseases in their natures.

All Ages have produced as great mortality and as great rebellion in Diseases as this, and Complications with other Diseases as dangerous. What Plague was ever more spread-

spreading or dangerous than that writ of by *Thucydides*, brought out of *Attica* into *Peloponnesus*? What Complication now caused by the presence of the Pox or Scurvy in a sick body, can make a greater alteration in any diseases, than the Complication of the like disease with the Leprosie heretofore? Doth he not believe there is as great a *μιάσμα* in the blood by the Leprosie as the Pox? yet those diseases were cured by the ancient Method, why not these? So that for ought I see we need not be put to the necessity of *establishing new Doctrines, new Methods and Rules of Curation, agreeable to the new frame of Humane nature, and to the new Phænomena of Diseases.* The old Notions and old Remedies may be good enough; not that I shall discourage him or any man for increasing the *Materia Medica* with any new piece of Knowledge, but dislike they should pretend to what

Pag. 204.

A

what they have not, (as many do) to the dishonour of others far more knowing than themselves.

These things being considered, this Chapter is not so hard but it may be read over without a Fes-
tuke or spelling-book, and by those that have set up their rest without any new going to school by them; and yet *the saying of pru-* Pag. 206.
dent Celsus the Plagiary of Hippo-
crates may be true too, *Vix ulla*
perpetua præcepta ars medicinalis
recipit: which saying hath not
relation to the Method or Art,
but to the Medicine and Person;
for though general Precepts may
be given *curare morbum*, they cannot
be *curare Petrum & Paulum*; and I
dare confidently averre, that no
man has been lost by the adhering
to the Precepts of Physick, though
some may have by the misapplica-
tion of them, in reducing them to
use and practice; whereas hundreds
daily are cast away by the prepo-
I iterous

sterous use of Remedies, especially Chymical ones slovenly prepared by these Mountebanks, and as immethodically appli'd at adventure.

In his next Breach he endeavours to draw to his Cause by the shoulders Mr. Boyle, whom he often quotes, and would fain induce the world to think him of his party; the passage he tells you is in his *Experimental Philosophy, part 2. essay 5.* he should have done well to have given us a little nearer guess at the place, for that Essay consists of twenty large Chapters, near half the book, and I believe he hath particularly concealed it, lest something might be found not to make for him. Perhaps that Physician might think that Method fair, which in it self was not, and the party not killed by a fair but a foul Method. But this Gentleman would from hence have us look upon Mr. Boyle as an Enemy to Method; but pray hear himself

The general Method settled.

115

self, *Exper. Philos. part 2. essay 5. cap. 18. pag. 266.* speaking of the nature and causes of Diseases he hath these words, Nor is the Method of curing *divers particular diseases more settled and agreed upon, that depending chiefly upon the knowledge of those causes, which as I was saying are controverted:* 'Tis not that I am an enemy to Method in Physick, or an undervaluer of it; but I fear the generality of Physicians (for I intend not, nor need all along this Essay speak of them all) have as yet but an imperfect Method, and have by the narrow principles they were taught in the Schools, been persuaded to change their Method rather to the barren principles of the Peripatetick School, than to the full amplitude of Nature. You see with what caution this Learned Gentleman delivers his sense: First, the Method of curing *divers particular diseases*, to wit, as they may be in *Craso* or *Celsus*; not that the gene-

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rad

ral Method of curing diseases is unsettled. Secondly, that he intends not all but some Physicians, though perhaps what he saith may fall upon the greatest part of them. Thirdly, that himself is no Enemy to Method, though its Precepts do not answer to the full amplitude of Nature. What can be more cautelously laid down? What is here to favour a casting away old Methods, erecting new Foundations, new Aphorisms, and I know not what, which our *M.N.* drives at? Touching his opinion of Chymists, and their costly application of Chymical Medicines in slight cases, see what he saith *chap. 6. pag. 147, 148, &c. 151.* the words are too long to transcribe, but in general he blames the Chymists as well in their unskilful preparations, as not dexterous applications of their Medicines; and is so far from tying up Physick to that Sphere onely, that he pro-
pounds

pounds many great Cures performed by simple Medicines taken from Vegetables and Animals, without any Chymical preparation at all. As to that Noble Person himself, I must tell the world I have had the honour to have been particularly acquainted with him now upwards of twenty years, that I know him to be a Scholar and Valuer of Learning where he meets it; he hath spent all his time from his very youth amongst Men of Learning, and much of it in our Universities, and therefore I am sure will give him little thanks that endeavours to bring him in as a Patron to those that decry Universities, Degrees, Learning, and Arts, endeavouring to bring in thereby Ignorance in the Professors, and Contempt upon the Professions themselves. I shall further adde, I have frequently been in his Laboratory, seen and been from him made partaker of many of his Pre-

I 3 parations,

parations, before the world knew them in Print, have received from his own hand not onely the manner of the Preparations, but the Medicines themselves, which I have often used with success, and have returned to him some of my own, which he hath taken kindly from me. But in all the course of this my knowledge of him, have ever found him Free, of a Communicable and Noble nature, a Friend to Scholars, free from that arrogance and pride of his Own Knowledge above Others; whose Pots and Glasses these petty fellows, who with so much boldness cry up themselves, are not worthy to clean after him. To this he hath added the communication of many excellent Preparations and other Medicines; whereas this Writer, and many other of his Complices, pretend onely to a secret and concealed kind of Knowledge. And in many other places of his book
quotes

quotes this Noble Person very little to the purpose, of which I shall take no further notice, the Character here by me knowingly given of him, being able to silence all Calumnies that by Consequences of their own drawing out of his words, contrary to his meaning, may be pinn'd upon him; of which 'tis none of the least that by this *M. N.* who in the quotation of that passage even now recited, leaves out the most material part of the sentence he cites; first altogether leaving out that which gave a rise to the discourse, *viz.* that the Method of curing some particular diseases was not perfectly settled, and then recites the sentence he doth cite, lamely; for whereas Mr. *Boyle* saith what may concern the generality of Physicians, (is not intended by him all along that Essay to be spoken of them all) this *Parenthesis* is left out, because it made not for him, and

strook onely at such who rested upon the bare Physiology, where-with Physicians as well as others were wonted to be imbued in the Schools, *pag. 236. part 2.* without endeavouring to advance that knowledge by new accretions, and neglected the use of Specificks in diseases, because they found in them no sensible Evacuations of the Peccant humour. If the generality of Physicians should be of that mind, I should blame them as much as he, but it appears he believes not that all are, and I thank God I know none that are so inclined; for my self, I daily make use of Specificks when I know them, nor ever met in consultation with any Learned person that refused the use of them. I find nothing material in this Chapter that hath not already been answered: the passage cut of *Hippocrates*, *pag. 217.* that of *Riverius* learning of a Pegger-woman the curing the

He-

Hæmorrhoides, I approve well ;
nor will I refuse to learn what I
know not of any man ; not that
this Medicine was the Begger-wom-
ans, for you may find it com-
mended for stopping Fluxes of
bloud both in *Matthiolus* Com-
mentary upon *Dioscorides*, and in
Macasius his *Promptuarium* : but
'tis not possible any Physician
should have such a memory, to
carry in his mind whatever he had
read. I very well remember a
Gentlewoman once told me, she
learnt of a Begger-woman that
Hollihock flowers boiled in Milk
would stop the *Fluxus mulierum*
post partum ; 'twas new to me then,
but I have since found it com-
mended by many Authors for the
like effect : and truly I have not
yet been so happy to meet with
any of those Old Womens receipts,
which I have not been able to
trace where they had their begin-
ning. These Country-women get
the

122 *Let Horses try first M.N. Medicine.*

the *Country Housewife*, some *English Herbal*, or the like, and sometime light of good things, which to those that know them not pass for their own.

Pag. 222. he enters into commendations of Humility: I joy with him in that, and shall not only commend his Conversation with those that cure Horses, but would advise the use of his and the rest of that Gangs concealed Medicines upon those creatures, before they ventured them upon Men, till the world were better acquainted with their Preparations, or their Abilities thereunto.

I should now give over this Chapter, did I not find it necessary once again to vindicate my Noble Friend Mr. *Boyle* from the Calumnies of this bold Assertor and Disingenuous person, who now pag. 226. mangling Mr. *Boyle's* words, endeavours to make him say, there

All Medicines require a skilful hand. 123

is no need of Learning (commonly so called) to make a good Physician. I will transcribe his words though they are long. *Pag. 394.* And in the last place, *Pyrophilus*, I must advertise you not to expect that every one of the Remedies I commend should be Physick and Physician too; I mean, that it should of it self suffice to perform the cures of those diseases against which it is commended. For Medicines are but instruments in the hands of the Physician; and though they be never so well edged and tempered, require a skilful hand to manage them: and therefore I cannot but admire and disapprove their boldness, that venture upon the practice of Physick, wherein it is so dangerous to commit errors, barely upon the confidence of having good Receipts. For though I dare not deny, but that he may prosperously practise Physick that either ignores or dissents from the receiv'd Doctrine of the Schools, concerning the causes of dis-

diseases and some other Pathological particulars; yet I cannot but dislike their boldness who venture to give active Physick either in intricate or acute diseases, without at least a mediocrity of knowledge in Anatomy, and so much knowledge of the history of diseases, as may suffice to inform them in a competent measure, what are the usual symptoms of such a disease, what course Nature is wont to take in dealing with the peccant matter, and what discernible alterations in the Patients body do commonly fore-run a Crisis, or otherwise the good or bad event of the disease. Then goes on and tells you, he will stand in need of a competent knowledge of the *Materia Medica*, and the Method of compounding Remedies. Now then let the world judge what ingenuity there is in this Citation, as he has mangled it; and what he saith more than *Fernelius* saith in his Life put out by *Plantius*; nay, *Avicenna* himself saith

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saith as much, *lib. I. Fen. I. cap. I.*
fol. 8. edit. Venet. 1608. apud Jun-
tor, speaking de subjecto Medicinæ;
Harum verò rerum quedam sunt, de
quibus medico nihil aliud est agen-
dum, [nisi ut quid sit tantum essen-
tiali formatione informet] & utrum
sint vel non sint, doctori sapientiæ
physicalis credat : and so goes on
to the end of that Chapter. By
which it is evident from that lear-
ned Arabian, that a Physician is
not bound with too great scrupu-
lousness to search into every thing,
the knowledge whereof may be
useful, but not absolutely necessary
to him as a Practiser. Of this rank I
reckon the too scrupulous inquiry
into the nature of all Plants, the too
much wading into the niceties and
new discoveries in Anatomy, of
which, Mr. Boyle well saith, a com-
petent knowledge is necessary;
not that I discourage or dislike the
labours of those that can afford
themselves liberty to spend all
their

their time in these Contemplations for the increase of their own knowledge, and the great good of others, but would not have it prevent their excellent Abilities in the cure of Diseases and visiting Patients, which is the main end of all their studies. In this number I would also reckon the Doctrine of the Composition of Mixt bodies, the Combination of the four qualities, Hot, Cold, Moist, and Dry; the Doctrine of Critical Days, Pulses, Urines, and Temperaments, which is the subject of the rest of his book; in which I hold it more safe for a man to rest upon the Opinion of the Ancients, built upon great Reason and many years Experience in the curing diseases by Remedies found out upon supposition of those things, though perhaps in every minute particular not exactly true; than upon whimsies and conceits of our own, not built upon greater Reason and

less

less Experience, to overthrow the Method and Foundation of Physick without first erecting another, upon which we may build with as much safety and assurance.

I might here make a close to his whole book, the rest of his time and ink being spent most upon Invectives against *Hippocrates* and *Galen*, persons above the biting of his venomous tooth; and the first as to his Cavils against his Aphorisms, Prognosticks, &c. so fully and learnedly vindicated by Doctor *Sprackling*, that when he or any of his Tribe shall give a solid Answer thereunto, he shall then see what more may be added upon that subject; onely let me adde this to the much materially said by Doctor *Sprackling*, that he condemns some of them for their Plainness, in which he discovers his own Ignorance, not knowing that Aphorisms are short Determinations, and therefore ought to be plain.

plain. But pray, Sir, is it not plain, that *totum est majus parte*, that the whole is greater than a part; that if from equal you take away equal, the residue shall be equal, which may as well be called ἀπὸ τοῦ ἴσου as καὶ τοῦ ἴσου? yet these were thought fit to be laid down by *Euclide* as previous to his *Elements*; and yet was never blamed for their plainness: nay, without them we should have been at a loss, for many Demonstrations both by *Euclide*, *Archimedes*, and others, made good onely *per deductionem ad impossibile*. But because in his next Chapter he is so bitter against the frigid notion of Four Elements, that we must away with them root and branch, without being heard what they can plead for themselves, I shall enter into consideration of the Composition of Mixt bodies; and though I would not be understood to defend that Doctrine in every thing,

but

but onely that those that make the *principia corporum* to be *Atomis*, and those that make them Salt, Sulphur, Spirit, Water and Earth, either are the same with the four Elements, or, where they differ, are subject to as inextricable difficulties as can be urged in allowing their composition to be from four Elements, Fire, Air, Water and Earth.

*An Examination of the Doctrin
of the Elements, and the Com-
position of Mixt Bodies.*

TO him that considers under what great obscurities the ancient Philosophers laboured to find out the causes and beginning of things, who being either wholly deprived of the knowledge of the Creation, or but darkly com-
K prehending

Not knowing the Creation, prehending the History of it, delivered indeed very anciently by *Moses*, but by most of them either not seen or not believed, to wit, that there was an Omnipotent Power who was able of nothing to create all things, by the effectual operation of his Word concurring with his Spirit; *He commanded and they were made: Thou sendest forth thy Spirit and they were created.* To him, I say, that considers these things, it will not at all seem strange to find them sometimes run into errors, which we see those that come after them in this fertile Age of Learning, and deep search into Natural Causes, cannot fully excuse themselves of. Insomuch that had we that ingenuity which might deservedly have been expected from us by our dead Predecessors, we should rather render them their due honour, for many great Truths delivered by them, to us, when

when like our *M. N.* with too great presumption and boldness, rail upon their persons with invectives, calling the Philosophy of *Aristotle*, dull; the notion of four Elements, frigid; *Galen*, the great corrupter; *Hippocrates* his learned Book *De Principiis*, slighted; his Doctrine of Critical Days called as childish a conceit as was ever owned by any long beards, called the children of men. Without returning invectives against this Writer, who lies open enough to him that hath a mind, I shall onely with as much brevity as may be, propound the several opinions, as well of the ancient as modern Authors touching this matter, and with as much candor as I can lay them down, and then leave the Reader to judge where the most reason is.

I shall not enter into the subtil speculation *de Materiâ primâ*; an Abyss fathomless, and in which

all that have endeavoured to penetrate have rather lost themselves then found that out : and 'tis no wonder, for how can Man, who is not able to judge of any thing but under the Idea of somewhat hath fallen under some of his senses, tell what that is that cannot possibly fall under any one of them? *Plato*, *Pythagoras*, and those of their Sect, made the beginning of things to be what could not be comprehended either by sense or imagination, but made it consist in certain eternal and unchangeable Ideas or Numbers. *Aristotle* makes *Privation* to have the nature of a *Principium* ; for having disputed upon that subject, *Ex nihilo nihil fit*, he tells you, Ἡμεῖς δὲ καὶ αὐτοὶ φαμεν γίγνεσθαι μὲν ὁδὸν ἀπλῶς ἐκ μὴ ὄντος, ὅμως μέντοι γίγνεσθαι ἐκ μὴ ὄντος ὅσον κατὰ συμβεβηκός ἐκ γὰρ τῆς εἰρησεως, ὃ ἐστὶ κατὰ αὐτὸ μὴ ὄν, ἢ ἐκ ἐνυπάρχοντος, γίγνεται τι : that is to say, That according to his opinion, nothing

nothing could be simply made, *ex non ente*, yet *per accidens* it might; for out of Privation, which in it self was nothing, having no existence, something is made. *Phys. lib. 1. cap. 8.* Then after saith, Ἡμεῖς μὲν γὰρ ὕλην καὶ στερησιν ἕτερον εἶναι φαίμεν, καὶ τούτων τὸ μὲν ἔκ δευτέρου κατὰ συμβεβηκός τὴν ὕλην, τὴν δὲ στερησιν κατὰ αὐτὴν καὶ τὴν μὲν ἐξ ὧν καὶ ἐκείαν πως, τὴν δὲ στερησιν ὑδαμῶς. Here he tells you, That *Hyle* or *Materia prima* and Privation are different; and of these, that *Hyle* is a *Non ens* by accident, but Privation properly; that *Hyle* is near, and as it were a substance or existence, but Privation by no means. Last of all saith, Λέγω γὰρ ὕλην τὸ πρῶτον ὑποκείμενον ἐκάσῳ, ἐξ οὗ γίγνεται τι ἐνυπάρχοντος μὴ κατὰ συμβεβηκός. That is, That *Hyle* is the first subject of every thing, out of which what ever hath being not by accident is begotten. By all which you may see how *Aristotle* was streightned to extricate him-

*Phys. lib. 1
cap. 9.*

self in the business of the first beginning of things. He found there was a necessity to admit in a manner something to be made out of nothing, and yet not seeing how that could be, tells you it could not be simply true, but true by accident, explains his meaning by Privation, which though it were in a manner *non ens*, yet gave beginning to something that was, as the privation of one thing is the generation of another, where Privation is but accidentally the beginning of an Entitie. Then after tells you, that *Hyle* is a *Non ens per accidens*, but Privation properly so. Why is *Hyle* a *Non ens per accidens*? Because he could not comprehend how, if it were admitted to be an Entitie, and have existence, there must not be something precedent, which must be the matter of that matter, and so there wou'd be a climbing *in infinitum*. All this I conceive proceeded

ceeded from his not knowing the power of God to create all things of nothing, and that Maxim, *Ex nihilo nihil fit*, was onely true à *parte post*, not à *parte ante*. 'Tis true, since the Creation, nothing can be made by it self, but must come from a feminal vertue by God's blessing given to the Creation, that various things might be produced according to their several kinds; but before the Creation it was not so. But the speculation of these things being wholly Metaphysical, I shall so leave them, and refer those that have a mind to wade beyond their depths in them to what *Vasques*, *Scotus*, *Suarez*, and all the Thomists have written upon this subject. Yet withall let me adde this Observation, that both *Plato* and *Aristotle*, who in many things disagreed, yet in this accorded, that from this *Materia prima* were produced the four

K 4 Elements

Elements of Fire, Air, Water and Earth, *Plato* ascribing to them their several forms.

The next sort of Philosophers we are to deal with are *Democritus*, *Epicurus*, and those of that Sect. Not that I am ignorant that *Democritus* lived before the time of *Aristotle*, contemporary with *Hippocrates*, and that *Epicurus* succeeded *Aristotle*. *Democritus*, *Empedocles*, *Anaxagoras* and *Parmenides* lived about the 80 Olympiade, and were lookt upon as defenders of a different sort of Philosophy, then what was generally by others of their age thought most probable and most received; some holding one opinion, some another concerning the beginning of things, as you may see them recited by *Aristotle* in sundry places in his *Physicks*, his *Book de Cælo*, and other of his Writings. Amongst them all *Democritus*, or perhaps one ancients then he,
Leucippus,

Leucippus, broach'd that opinion, that all things were at first made of Atoms, though I confess I find not that word used before the time of *Epicurus*, who flourished much about the time of *Aristotle*: they maintained that the beginning of all things came from Atoms flying about *in vacua*, and that by their motion & concurrence all bodies were made. They agreed not well what to call them; some called them μονάδας, unities; others, σωματία, little bodies; πλήρη, μετὰ, γαστὰ, plena, & densa; τῶν ὄντων ὕλην, the first matter of all things. And *Epicurus* saith, as *Plutarch* relates it, καὶ ὡνται ἄτομος, ὅτι ἐστὶν ἰδαχίση, ἀλλ' ὅτι ἔδύναται τμήσθαι, ἀπαθὴς ἰσα καὶ ἀμέτοχος καὶ ὤ. That it was called an Atom, not because it was the least bodie, but because it could not be divided, being incapable of vacuitie. See *Gassend. Phys. sect. 1. lib. 3. cap. 5.* Then they farther added they were aspera,

aspera, levia, rotunda, angulata, hamata; rough, light, round, angled, and hooked. *Plutarch* tells you, that *Democritus* allowed them magnitude and figure, and *Epicurus* allowed them weight; so that it seems they were both heavy and light. *Vid. Lactan. de ira Dei, pag. 784. edit. Hacky, 1660.* However, be they what they will, from these, as the beginning of all things, was the Universe made. This opinion seemed so unreasonable, that for nigh 2000 years it lay buried and forgotten, till at last it was revived by *Gassendus*, a learned Philosopher and Divine, *Regius Professor* of the Mathematicks at *Paris*, whom my self had the honour particularly to know, and frequently converse with there; and often about this subject; I found him a man very communicable, but to me would never declare his opinion to agree with that of *Epicurus*, onely resolving

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solving to write his Life and Philosophie, thought fit to propound fairly what might be said on that subject. This opinion, in my judgment, labours under many and great improbabilities. First, they admit of no first Causes beyond the sphere of Nature, and are disputed against by *Lactantius* as deniers of Providence. They held there was no difference between *Materia prima* and *Elementa*: That Atoms were both, and had their beginning *ab eterno* from no other cause but Nature or themselves, against *Aristotle*, who affirms, *Elementis eterna fieri impossibile*.

Secondly, They were *συνεχέα*, little bodies, that they had figure and weight; so there was *locatum*, but there was no *locus*, for they did *volitare in vacuo*, for *in vacuo* there can neither be space nor extension, and a Body cannot be without both, neither can we have any other Idea of a Body, but

but what we have of Space. Besides, *in Vacuo* there can be no terms of motion.

Thirdly, There is less absurditie to make *maximum divisible* the beginning of things then *Minimum*. Nature might as well make a great bodie of nothing, or let it be from eternitie, as make many little ones out of them to make one great one; for *Maximum* and *Minimum* differ not specifically, and divide a bodie into what particles you please, the matter is still the same, and the magnitude would be the same, could you restore the figure, and a thing is called *Maximum* in respect of the matter, not the figure.

Fourthly, There can be no solid reason given for the passion of any bodie from this Doctrin; for if the first Man were made from the voluntary concurrence of Atoms, they being impassible and eternal, why is not the *compositum* so too?

There

There is in them no contrarietie, and so can be no fighting between contrarie qualities, which should cause either pains or death, their difference being onely in figure. This argument is used by Hippocrates in his book *de naturâ humanâ*. 'Εγὼ δὲ φησὶ, ἓν ἐστὶν ὁ ἀνθρώπος, ἰσχυρὸν ἂν ὕλυσεν. If a man be but one, that is to say, of one principle, he could not feel pain. Fernelius tells you in his Book *de Elementis*, lib. 2. cap. 4. *His argumentis tanquam fistibus visilla & turbulenta concursu atomorum immutabilium per inane volitantium in exilium relegata, & de naturâ & mundoque depulsa videri possit.*

Fifthly, Aristotle in his Physicks demonstrates, that a *continuum* cannot be made of indivisibles, because in them there is nothing first nor last, in regard there are no parts; the Chapter is well worth reading over, and confuted by those that think themselves able to do it.

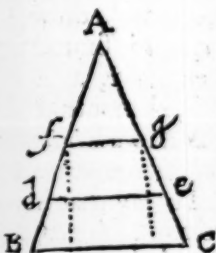
Sixthly,

Sixthly, How comes it that all things are made with so great ornament, if they came by a voluntary concurrence of Atomes at first? why have we not still the same things? An infinitie of Atoms cannot be exhausted, nor can any reason be given why there are not every day new Machines made equal to the frame of the world. Why need we seeds of any thing? that which brought them at first may continue them still. 'Tis strange to think this *Machina mundi* could be made by a concurrence of Atoms, and yet we never saw a poor Cottage so made. Or at least whence comes it to pass, that some new concurrence of Atoms doth not disjoint, and put this already made out of frame?

I let pass many arguments drawn from Geometry, viz. That a shorter and a longer line will be equal, that the hypotenuse in a rectangled triangle is equal to the

the perpendicular ; nay indeed, that no triangle can be made. For

let the Triangle ABC be equicrural, & let AB consist of any number, for the purpose of three Atoms, AC of the same, let BC

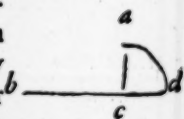


be two Atoms, de , which is shorter than BC , cannot be less than one ; let it then be supposed one, then must it follow, that de and fg are equal, for nothing can be less than one Atom, and de is but one by supposition, fg is therefore one also, and equal to de , which is absurd, unless a part be equal to the whole, for that part of de between the prick'd lines is equal to fg , therefore de is greater.

Again, if there be any hooked Atoms, it follows demonstratively

144 *Mathematicks agree with Physicks.*

ly they cannot be indivisible; for let $b d$ be a hooked Atom, from the term a draw $a c$, that is shorter than $a d c$, as is easily demonstrated; then is not that Atom *minimum divisibile*, for I have given you a less, viz. $a c$.



To say that here is a transition from Mathematical to Physical lines, is but a meer *effugium* or cavil, for what ever is Mathematically true is Physically true too, if you take it under a Physical consideration; and the line or Atom $a c$, take it under what consideration or notion soever, will be still shorter than $a d c$, and so $a d c$ not the *minimum divisibile*.

Again, An Atom must be considered under the notion of a Quantity, let it be the least. But *Diophantus* will teach you lib. 4. *Arithm. quest.* 33. that an Unit, that is to say, the least quantity

is in its own nature divisible.

To say that an Atom is divisible in its own nature, but that nature never did proceed to the dividing it, is to speak this not intelligible; for how is it possible to consider a thing divisible in its own nature, and yet not to have its beginning from something less than it self? Neither can you have any other Idea of it then as a thing extended, and so occupying a place.

Perhaps it may be said, that those that assert the doctrine of Atoms are not so rigid as I make them, but will allow, that though all bodies are made of Atoms, yet they are made of fiery, aery, earthly and watry Atoms, and that from the discord of these all passions and death comes. If their meaning be this, we shall easily agree. The difference being onely verbal, they calling that an Atom which *Aristotle* calls an Element, then will not the notion of the

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four Elements be so frigid as our *M. N.* makes them, or so easily to be cashiered. But certainly I know none of the Ancients of that Sect have explained their meaning in that manner. You may see in *Hippocrates* in the place before cited, some held all things were made of fire, others of water, others of earth, but none of the mixture of them all; though perchance some later Writers, pressed by many absurdities which would otherwise have followed, have expressed their meaning otherwise. *vid. Magnen. prop. 28. &c. lib. tertij.*

Possibly it may be urged, that some of the inconveniences that follow upon this doctrine of Atoms will fall out likewise upon that of Elements; for who brought them together to make the composition?

The Answer to this is easie to those that believe the Creation.

Plato

Plato could tell you the beginning of things could not be comprehended by sense or imagination. *Aristotle* in several places speaks of τὸ θεῖον, something that was Divine; so that they had some dark knowledge of the providence and government of God, which *Democritus* and *Epicurus* derided; though necessity sometime made rather some of their followers than themselves let fall words sounding toward the concession of a Deity.

Another opinion, somewhat different from those before mentioned, and the commonly received *Aristotelian* Principles, is that of *Mr. Des Cartes*, a person certainly of as sublime a wit and deep reach as any that hath gone before him; he finding that the doctrine of *Democritus* and *Epicurus* was subject to great difficulties, which required bodies that had both figure and extension, not onely to be indivisible, but also

to move *in vacuo*, both which qualities he held absurd and impossible: and therefore endeavours, *Princip. Phil. pars. 2.* to prove there is no difference between *spatium extensum* & *corpus*, and that a *spatium imaginarium immensum* fancied by some before the Creation, was impossible, because no such space could be without a body to fill it, the nature of *Body* consisting in extension, which in truth is no more then what *Aristotle* had said long before, that there could be no *spatium vacuum*, because there could be no terms of it. But from this *suppositum* Mr. *Des Cartes* concludes, and *Regius* his follower, that the matter of the whole Creation must needs be one and the same, both of bodies Celestial and Terrestrial, because the essence of *Matter* or *Body* simply and universally considered, consisting onely in extension, that being always the same, the matter must

must be so also. This you may see laid down by Mr. *Des Cartes*, *Prin. phil. p. 2. sect. 22. Regii Philo. natur. p. 6.* And having farther explained local motion and the nature thereof, he comes in the third part of his *Princ. Philos.* to handle the Elements or most simple parts, out of which he conceives this *Mundus aspectibilis* might have been framed ; and this he lays down, not as a truth, but as an hypothesis, from which all appearances may be solved : for being a great Philosopher, and withall a Christian, he tells you, that 'tis not to be doubted but that God at first created all things in their perfection by his infinite power, not out of Seeds or Elements. Yet for our better understanding the manner of the Creation, we may well consider how all things might have been made by God, though that they were by him so made we know to be

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false.

false. *v. Phil. p. tent. sect. 45.* For the better explication of this, he supposeth, that after all that matter of which the world consists was made, it pleased God to divide it into magnitudes near equal to one another, endowed every one of them with that swiftness they now retain and keep, and that every one of these particles move in near a circular motion about its own centre, separated and divided each of them one from the other. These particles he conceives to be of different irregular figures; that by their violent motion, hitting one against the other by Attrition, they did wear off a very thin dust, which by reason of its extraordinary thinness and lightness he makes to be the first Element, and the matter of the third Heaven, which by reason of its infinite subtiltie was capable to insinuate it self, and fill up all vacuities in other bodies; and

and out of which first light, and after by a congregation of more of that matter the Sun was made. In the next place he supposeth, that by the attrition of these particles a second sort of matter was made, not so subtil as the first, out of this the Stars and Planets moving in their severall Vortexes were framed. By this time these irregular figures by continual attrition wearing off the angles of one another, at last grew round, and what was worn off thicker and grosser, out of this thickest part the Earth & the things contained, he thinks to have been made and composed. So that the matter of all things is still the same, differing onely in densitie and raritie. This I take to be shortly the sense of this Author, and by which as the most simple he conceives the appearances of nature may be solved, so that though things were not, yet it might have pleased God to have

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made them so. I think him thus far in the right, that he makes the *Maximum divisibile* to be the *Materia prima*, and divides that into particles, which in my judgment is more reasonable, then to make Atoms concurre of themselves by a volitation *in vacuo*, because it is more agreeable to reason, that God made all things as they now are at first, and that their disposition by days, first, second, &c. was not that there were days with God, but to teach us the order of the Creation, and that there should be days and times with us: and this seems to be the opinion of *Du Hamel* pag. 69. *de consens. vet. & nov. Philos.* and quotes *St. Augustine* to back it. This Hypothesis of this great Philosopher seems to me to be subject to many improbabilities: for why doth he make three Elements? if the matter be the same there is but one. Wheat and Flower is the same substance,

stance, though the one be finer then the other. But if it be said he understands densitie in one subject, and rareness in another, which makes a difference in the things themselves as to their effects, the more rare entering into the composition of Light, the Sun and Stars; the more thick and dense to the making more dark & opacous bodies, why doth he not then make as many Elements as there are diversities of densitie and rareness?

Secondly, I cannot conceive how there can be any motion in those particles, out of which these Elements are made. For first, it is admitted that the great *Expansum* hath extension, and so consequently is filled with some body or bodies, which must then of necessity be contiguous one to the other, and consequently no possibility of motion, except what is common to all the parts together, like a bladder filled with air. For either
you

you must say, that the several faces of these particles meet together, which must hinder the motion or abrasion of one another, or else the angles of some must meet and touch the plains of others, then they will not *complexe locum solidum*, so that there must be an empty space not filled with any thing, since that thin subtil matter that should fill up all these vacuities is not in nature, till it be first made by abrasion. Thirdly, I see not Mr. *Des Cartes* make any contrarietie in these Elements, and so the same inconveniences will follow that did from the other opinions, to wit, that there should be no passion, death, or alteration of bodies. For if these three Elements be made one out of the other, they must needs be homogeneous without any contrarietie, and so subject to no corruption. To say that it may come from some disturbance in the motion

and impossible to conceive.

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tion of that very subtile etherial matter which fills up the void spaces or pores in all bodies, is very hard to conceive. For first, admit that such a disturbance in the motion of that matter might cause an alteration or corruption, what extraneous matter should cause that disturbance I see not, nature of her self never tending to her own destruction. Besides, from hence it must follow, that corruption and alteration of all bodies comes from a cause without them, and not from any thing that enters into the texture of the body, or any indisposition of the parts thereof. Lastly, to say that those little particles that go to the texture of any body do of themselves disunite, doth not avoid the precedent inconvenience, for it may be asked why they disunite, or what made them come together to seperate? Neither can that be supposed of which no cause can be given

156 Democr. and Des Cart. differ.
given. *vid. Magnen. p. 302.*

Lastly, I see little difference between this opinion and that of *Democritus*, since they both agree there was an infinitie of small parts, from the conjunction of which all greater bodies were made; in this they differ: one saith, they are solid, compact and indivisible; the other, that they are indefinite though not infinite, divisible though not divided. One makes the little Atoms, first made by nature, and that by their course the great Machine of the world was made; the other saith, the great Expansion was by God first created, & that the ornaments and elements thereof were taken out of the great mass by division, and separation of the parts of it.

I come now to examine the reasons of our late Chymists touching the beginning or elements of mixt bodies, and I shall as shortly as I can not onely shew their opinion,

nion, but withall shew what deviation they have made from those ancient Hermetick Philosophers, from whom they at first deduced their notions. These late Philosophers by fire, as they style themselves, finding that the ancient Hermetick Philosophers made often mention of *Sulphure* and *Mercury* in their writings, to which others added *Salt*; and farther finding them to make frequent mentions of Sublimation, Calcination, Ablution, Circulation, Digestion, Reverberation, Fixation, and the like; and also of the different Vessels and Furnaces to be used in their Philosophical works, adhering to the Letter, but deviating from the sense, not considering the simple and easie waies of nature in the production of things, though ever inculcated to them in the ancient Writers, presently fell to the invention of several Furnaces proper for those
several

several works as themselves, not the true Philosophers, understood them, who do not stick sometime to tell you, that by Sublimation, Calcination, Circulation, Fixation, and the like, they understand things quite different from what our vulgar Chymists mean; nay, that these several Operations are performed in one and the same Furnace, nay, in one and the same Vessel, Nature being the true Philosopher, who of it self excites the central and natural Fire that lies hid in the prepared Matter, by the help of an artificial one in its degrees, administred by the hand of the Artist. So that Sublimation, Circulation, Digestion, Calcination and Fixation are but different steps in the same work. But this either not suiting with the humour or pride of later Wits, who thought nothing very good that was not attained by great labour, fell to inventing of several Furnaces

naces proper for these several works ; thence came your *Furnus sublimatorius*, *Calcinatorius*, *Reverberatorius*, *Circulatorius*, *Digestivus*, and as many more, as every man according to his several fancy pleased to think of. Next, finding that out of several things, both Mineral and Vegetable, by divers preparations and different administrations of Fire, they were able to produce different sorts of Substances, some insipid, some quick and piercing, some acid and sharp, some viscous, Unctuous and inflammable, some saline, some fixed, have attributed to these Substances several names, *viz.* to the watery insipid part, phlegm ; to the spiritual or piercing, Mercury ; to the unctuous, Sulphur ; the saline, Salt ; the fixed, Earth ; and make these to be the five Principles or Elements of natural bodies. So Mr. *Le Febvre*, whose words are quoted by our Author, *pag.*

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270. understanding Principles and Elements to be the same thing. So Mr. de Clave, cap. 7. pag. 40. tells you, they find onely five simple bodies in their last resolution, and thinks them ridiculous who make any difference between *Principia* and *Elementa*. So that these five Principles must by them, at least by our *M. N.* be held up *exclusive* to those four of Fire, Air, Water and Earth, the notion of which must be look'd upon as frigid and vain, and these five lookt upon as the most simple Substances. In this Disceptation it will not be unworthy our observation, that these persons having deduced their notions of *Salt*, *Sulphur* and *Mercury* out of the Writings of the ancient Hermetick Philosophers, ought not in reason to be believed farther then they agree with their ancient Masters, not where they differ from and fight against them: now 'tis very clear out of all their Writings,

Writings, that by *Sulphur* and *Mercury* they understood very frequently something latent in the *Materia magisterii*, which matter they all held to be compounded of the four Elements, by the circulation whereof in the *Rota Philosophica*, the *Magisterium* was composed, when they then called *Sulphur fixum*, *Universale solvens*, nay sometime *Mercurius Philosophorum*; not but that there was in it before it came to this height both *Sulphur* and *Mercury*, the volatile part of the matter they called *Mercury*, sometime the whole matter, crude and undigested, without any previous preparation, was called *Mercury*, and this on purpose that they might conceal their Art from such as they held unworthy to know it. The *nexus utrinque*, to wit, of *Sulphur* and *Mercury*; they called *Salt*, which by many Philosophers is left out, and indeed in the Philosophical work appears

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Yet admit four Elements, and that
 pears not, but as a *vehiculum* to set
 the other two at work, that so su-
perius haberet naturam inferioris,
& inferius naturam superioris. But
 there is nothing more clear from
 all their Writings, that they ad-
 mitted the four Elements of Fire,
 Air, Water and Earth; this is very
 plain by *Raimund Lully* in *codicillo*
cap. 33, 34, &c. among the later
 Writers, *Sendivogius* throughout
 his Book. *In tract. de Sulph.* he hath
 these words, *Sunt autem principia*
rerum, præsertim metallorum, secun-
dum antiquos Philosophas duo, Sul-
phur & Mercurius; secundum Neote-
ricos vere tria, Sal, Sulphur, & Mer-
curius. Origo autem horum princi-
piorum sunt quatuor Elementa. Sciunt
ergo studiosi hujus scientiæ quatuor
esse elementa, &c. And in another
 place of the same Author, *Duplex*
est materia metallorum (note, he
 saith not *rerum omnium*, but me-
tallorum) *proxima, remota: proxi-*
ma est Sulphur & Mercurius, re-

Water contains all four in it.

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nota sunt quatuor Elementa, &c.
By which it is manifest these ancient Philosophers did not intend that these *Principia* of *Sulphur* and *Mercury* should jumble out the Doctrine of the four Elements, but add that of *Sulphur* and *Mercury* distinct from them, and in the same Treatise handles the natures of them all distinctly and apart. The Author of that little Tractate called *Physica restituta*, Can. 58. tells you, That all mixt bodies are made of two Elements, which answer to Earth and Water, in the which the other of Air and Fire are virtually included. In *Arct. Hermet. Philosoph.* Can. 76. he tells you, That the other Elements are circulated in the form of Water. He tells you of *Ignis naturalis in mixtis*, and a *Humor radicalis*, which are both immortal and inseparable from any subject: he explains his meaning by the example of glass made out of ashes,

M 2 which

which could not be made fluxile except there were in those ashes a radical moisture; so of Salts. In summe, I know not one of them but admit, that in all bodies there is something answerable to the four Elements of Fire, Air, Water and Earth, which we feel and handle, and by the mixture of which they are all, or at least some of them, composed. [*For by the way I would not be understood to say, that necessarily every body whatsoever must be composed of all the four Elements, for a mixture may be made, and some body, for ought I know, framed out of the conjunction of two or three of them; and 'tis enough for the support of that Doctrine that there are four, to deduce rationally that any one body is composed of them.*] By what hath been already said it is evident, that the ancient Philosophers did conceive and hold, that their *Sulphur* and *Mercury* is something that lies

the heart of that matter which
 is compounded of the four Ele-
 ments. See *Phys. restitut. Can. 224.*
 That Sulphur answers to the *Calidum innatum*, which is the spiritual
 fire, and *Mercury* to the *humidum radicale*. So that by those names
 sometimes they understand what
 mixt bodies hath some analogy
 with the Elements of Fire, Air
 and Water; for under *humidum radicale* both Air and Water, in their
 sense, are comprehended. At other
 times by Sulphur they understand
 the fixed matter, after the circula-
 tion of the Elements through eve-
 ry degree of their Zodiack, and
 by *Mercury* the volatil part, which
 causes that circulation to be made
 in *forma aquæ*, and in *ventre aëris*,
 till at last all ends in *rupem illuminatam*, as they are pleased to
 phrase it, which of it self is a
 powerful remedy for all diseases,
 and hath an ingress to the solution
 of all imperfect Metalls, and, as
 in M 3 they

they say, after some succedaneous preparations and repetition of the same work, will cause a transmutation of them. But they never understood that any of these Principles should destroy and put out of doors the four Elements, which themselves always maintained. Some of the Chymists, I confess, as Monsieur de *Clave* and others, have denied an Elementary Fire, not distinguishing between the material Fire we see in its effects, and that central we see not. So by their laborious operations of the ancient Philosophers, they have corrupted their sense, and merited what *Sen-divogius* saith of them, *Si hodie revivisceret ipse Philosophorum pater Hermes, & subtilis ingenii Geber, cum profundissimo Raimundo Lullio, non pro Philosophis, sed potius pro discipulis à nostris Chymistis haberentur. Nescirent tot hodie usitatas distillationes, tot circulationes, tot calcinationes, & tot alia innumera-*
bilis

bilis *artistarum* *opera*, *que* *hujus* *sa-*
culi *homines* *ex* *illorum* *scriptis* *in-*
venerunt & *excogitarunt*. That is
to say, If those ancient and pro-
found Philosophers, *Hermes*, *Ge-*
ber and *Lullium* were alive, they
would rather be accounted Disci-
ples than Philosophers, who
would not understand the mean-
ing of those many Distillations,
Circulations, Calcinations, and
innumerable other laborious ope-
rations found by these Artists out
of their Writings, contrary to the
meaning of them. What reason
therefore have we to believe, that
these men have by their fiery and
destructive trials found out the
Principles or Elements from which
mixt bodies have their compositi-
on, when they have so much mi-
staken the sense of those Authors
from whom they first took their
names and notions of *Sulphur*, *Salts*
and *Mercury*?

I shall onely touch at many un-

M 4

reasonable

168 *Entia non multiplicanda sunt.*

reasonable deductions, which in my judgment will follow out of this Doctrine. *First, Entia non sunt multiplicanda nisi propter necessitatem.* So that all those parts in which humidity is prevalent, may be well comprehended under the Element of Water ; such are insipid Phlegm, perhaps Spirit and Oyl, except you had rather reckon them of the Element of Fire, because of their inflammability. The drier parts under that of Earth, in which Air and Fire are included, which two likewise insinnate themselves into all other compounded bodies, for I believe Air is in the most rectifi'd Spirit, and natural heat in all water whatsoever, which causes first a fermentation, and then a corruption. The different savours and viscosity may well be believed to proceed from the different wombs of the Earth, in which the elemental mixture or matter produceth various off-springs ;

off-springs; to wit, of Metalls, Marcasites, Stones, Plants, and the like, endued with those several qualities and tastes we find in them, participating in their nature of that part of the Earth whence they had their beginnings. Beside, if this opinion should be admitted, we must fancie as many Sulphurs as there are different sorts of Oyls produced out of any body; so of the rest. Neither do I see what more reason they have to say, that all Oyls, Phlegms and Spirits, though very different in their tastes and effects, are the same Element of Sulphur, Water and Mercury; they, I say, are all comprehended under that one of Water, in regard humidity is in them all most prevalent. *Secondly*, in this resolutory way of theirs, many bodies afford a volatile Salt that ascends with the matter to be resolved, and is different in effects, and not very like in taste to

170 *Are all the Elem. out of every nature?*

to that which is fixed and lies hid in the earthy part of the matter, till by calcination of it into ashes any convenient *Menstruum* becomes impregnated with it, and that by evaporation of the *Menstruum* taken out. I see not why these may not be called different Elements as well as Phlegm and Spirit, the one called *Water*, the other *Mercury*; then in stead of five we have six Elements. *Thirdly*, in many of those bodies which will be distilled, all these different Elements will not, I think, be drawn, as out of your Resins, out of which (*Terebintine* for the purpose) I have never seen any fixed Salt made; *Faber* tells us of a volatil. Salt to be taken out of it. From hence it will follow, that all bodies are not compounded of the same number of Elements. The like may be said of your *Pinguedines* and many Gums. I think nobody will deny that our ordinary *Water*, or, if
you

you please, *May* dew is a compound, yet will it be found, I believe, past the cunning of these Artists to draw from it either a burning Spirit or inflameable Oyl. I am not ignorant that *Faber* speaks of a sharp burning Spirit, drawn, as he saith, out of Rain-water, he counts it for a *Panacea*, and it may, I believe, be so judged, when 'tis attained without sophistication. *Fourthly*, what shall we say to the Tincture taken sometimes out of the crude matter, both Vegetable and Mineral, which shall notwithstanding, after they are bereaved of their Tinctures, yield the same Salts, Spirits, Phlegms and Oyls they did whilst they were full of it ? Under what Classis shall we put these Tinctures ? why may we not reckon them another Element ? & then we have gotten seven, *viz.* Earth, Phlegm, volatil Salt, fixed Salt, Spirit, Oyl and Tincture. If you
say

say that Tincture is but a subtil part of that body out of which 'twas drawn, I admit it, but still 'tis a part of that body endued with a colour taken out of the whole, and of which the whole by that means is bereaved. Nay, what will he say to him that shall shew him a substance drawn out of the ashes of an ordinary Vegetable, after their Salt is taken away, which evidently shews that those very ashes which, according to this Doctrin, should be the pure Element of Earth, are still a compound body? Farther, what will he say to the Quintessences drawn by Chymists, what to the *Prima entia* of many substances both Vegetable and Mineral, spoken of by *Paracelsus* in the end of his Tractate *De Renovatione & Restauratione*? what are these? and why may not these be called *Principia* as well as any of those named by our Author? So are we not
certain

certain at last how many *Principia* we may come to. *Paracelsus* himself is more modest, for he tells you *in tractatu de rebus naturalibus, cap. 4. De sale & sub sale contentis. Constat homo ex tribus, Sulphure, Mercurio, Sale. Ex his etiam constat quicquid ubi vis est, & nec paucioribus nec pluribus.* And in another place tells you, *de tribus principiis, cap. 2. Id quod ardet Sulphur est, quod effumat est Mercurius, qui cinis relinquitur Sal est.* By which words 'tis clear, that under *Ashes* he comprehends our Author's Earth and Salt, under *Sulphur* whatsoever is inflammable; so that our Author's Oyl and Spirit are comprehended under the name of *Sulphur*, and under that of *Mercury* the parts of any matter that will ascend in a smoke or vapour; by which two things are very manifest. First, that *Paracelsus* here spake in the sense of other ancient Philosophers, and did

did not take these substances as things to shoulder out the four Elements, which in another Treatise he particularly defends, and shews how they are in the body under the form of the four humours; so that it seems neither the Doctrine of the Elements nor of the four Humours were look'd upon as fancies by *Paracelsus*. Secondly, That these substances were look'd upon by him as compotunds; and so not as the Elements and most simple parts of the mixt body, contrary to what Mr. *De Clave's* and our Author, out of *Le Febvre*, have delivered, for in them all will *Mercury* be found, for they will all give a smoke if they be set upon the fire and made boil, except the drie Ashes divested of its Salt. Of the same opinion is Dr. *Willis*, who tells you, he doth indeed find those five substances in bodies, but doth not deliver them as most simple

simple beings altogether uncompounded, but onely as such sensible parts, by the motion, combination, inequality or separation whereof bodies are augmented or perish, and this to the end that men may, in his judgment, better understand by the view of these more gross parts how Fermentation is made, then by the more abstracted notion of the four Elements, which never in their purity come under the senses. In all this there is no absurdity, and let him in God's name enjoy his opinion that conceives he can this way better explain the appearances of Nature. But the understanding of these substances in this sense can be no part of our *M. N.*'s meaning, who makes use of them to thrust out of doors the frigid notion of the four Elements, with the fancy of Humours and Qualities; tells you these are the Principles or Elements of natural bodies, in
which

which after their reduction, nothing heterogeneous can be found; whereas the ancient Philosophers as well as *Paracelsus* and *Dr. Willis* do admit these which he calls Elements to be still compounded bodies, and do all, notwithstanding this, allow both of Qualities, Humours and four Elements, as I have shewed before, and is yet more cleared, when we consider that in the driving off of the Oils from many acid bodies, Vitriol for the purpose, part of the substance of the Mineral it self comes over with the Oil, which in time will of it self precipitate in the air in the form of that body was drawn off, and, to my understanding, in all respects the same; and so not the volatile Salt which peradventure others might, and my self did at first suppose, till upon trial I was satisfi'd otherwise. I have by me at this present a Balsame of Sulphur, which I prepared above
fifteen

fifteen years since, which still retains as high a tincture to outward appearance as it had at first, and yet hath let fall some of my Sulphur to the bottom, which could not come thither, had it not in substance first ascended into the *Menstruum*, for whether it rise three inches or ten is not material: but this is certain, it remained all in the form of a liquor for many years. I might adde, that many of these substances will in time corrupt and stink, others nourish, which cannot well be conceived from what is simple, and hath nothing in it heterogeneous. Thus I have done with the examination of the several opinions, and come now to the last *Aristotelian* way of the composition of mixt bodies out of the four Elements, in which we have, after all this clamour of our *M. N.* and those of his party, this advantage, that two of them are granted to our hand, *viz. Wa-*

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ter

ter and *Earth*; as for the other two, the parties are divided, some denying an elementary fire, others admitting fire and denying Air; perhaps their mistake may proceed from not being able to form to themselves any Idea of Fire and Air, except what they see and feel in their effects; whereas undoubtedly the elementary Earth and Water are as different in their natures from that Earth and Water we see, as the Fire and Air in their elements are different from those we see and feel. But the Ancients, with *Aristotle* and his followers, finding by experience that there were four contrary qualities, to wit, Heat, Coldness, Drought, Moisture, and that these being accidents must needs inhere in some subject, did from hence rationally enough deduce, that that subject in which heat was without any mixture, might be well called the element of Fire, and so

of

of the rest. Finding, secondly, that most bodies, as well animate as other, were endued with a certain temperament, that is to say, some in which heat prevailed, yet so alloied with coldness, that the heat did not utterly consume and destroy the *compositum*; others in which Drought was most intense, yet attempered in some measure with moisture, deduced, that this temperament could not well be introduced in nature, without a mixture of those qualities which resided purely in their elements; hence came first the notion of the four Elements, found out primarily by the consideration of the four qualities, the mixture of the Elements in the composition of bodies, by the temperament of them; so that the qualities and temperament, the one introduced the Elements, the other the mixture of them, in which they were careful to distinguish between ap-

N 2

position;

position, confusion and mixture; apposition, where two different things were put together, so as again they might be separated, as, for the purpose, different seeds or grains. Confusion, where different things were put together, which could not be separated, yet introduced not a new form, such is the putting of wine and water together, which retains still the same form it had of liquor. Lastly, Mixture properly so called, in which, by most Authors, these four conditions are required. First, that the *Miscibilia* must be endued with contrary qualities, that they may mutually act and suffer one fion the other, for otherwise they would remain in the same state without any mixtion at all. Secondly, there must be a certain proportion both in quantity and quality, otherwise one would destroy the other, and there could be no temperament. Now this pro-

proportion and contrariety in the Miscibles, if it be of equality, produceth a temperament *ad Pondus*, which so long as it remains in any body, that (as it seems to me) cannot receive any change or alteration. But where there is not that equality both in quantity and quality, but that one prevails over the other in some measure, yet not so to destroy hastily the *Compositum*, this is called Temperament *ad Justitiam*, by which the *Compositum* may be preserved for many years in a good estate, yet at last, from the constant fight of these contrary qualities, alteration, death and corruption at last let in. Thirdly, the Elements must be so put together, that every part of the *Compositum* must retain them all four. And, lastly, that they must remain formally in *Mixto*. I know this last is controverted by some Writers, yet I believe will, upon

examination, be found a truth; but the disputation thereof is not for this place.

Avicenna, lib. 1. d. 2. proves the Elements from the necessary things that must concur to the generation of every natural body; he tells you, no generation can be without a fixation of the matter and extension, a dilution and permeation of the parts, a subtiliation and mixture with motion: he tells you, fixation comes from the Earth, extension and dilution from the Water, permeation and subtiliation from the Air, the motion of the mixed from the Fire; and then concludes, that since those things are necessary to all generations, and are supplied by those four Elements, those Elements must needs have existence to supply that office. This argumentation from this learned *Arabian*, will, upon good consideration, be found to have more weight then at first sight

M.N.'s 8th & 9th chap. are but repetitions. 183

fight doth perhaps appear. Of this I am sure, that this, with those before drawn from the combinations of the four qualities amongst many others, have so far prevailed with the world, that they have, I think, for nigh, if not full 2000 years, been thought reasonable, and therefore not so easily to be exploded, and thought dry and jejune notions, as our *M. N.* would have them. Let every man, however, for me, safely enjoy his own opinion, and the learned judge which carries most weight of reason.

I should now come to a particular examination of the eighth and ninth Chapters of his book, which are very long, but contain in them nothing, or little more than a repetition of what hath been several times inculcated in other parts of his Book, and already taken notice of. What he

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speaks

speaks touching Digestion, Fermentation, and the mistake of the Schools in the notion of Diseases; whether a disease be onely a distemper in the excess of qualities, as the *Galenists*, or a real substantial thing inherent in the *Archeus*, as *Helmont*, may admit of an endless dispute; but he should do well to explain what they mean by *Archeus*, and how a disease can be inherent in it, or how any Medicine can work upon a Spirit and incorporeal thing, or disease cured, except it can be done by means of the qualities in correcting their excess. I am sure none of them have hitherto delivered us any such Medicine or method, and till then, for ought I see, we must be content with our old ones. No more to the purpose is what he saith in the same Chapter touching the distribution of the *Chyle*, in which the new discoveries have not at all altered the old

old method, which stands firm upon its ancient base of long experience and practise. Neither doth he or any other make it appear, that Chymical preparations, which he onely contends for, do otherwise operate then the other *Galenick* ones do, viz. by Purging, Vomit, Sweat, Urine, Digestion or Transpiration, which effect they had long before the new discoveries in Anatomy were at all made known to the world: and therefore from that Topick, no casting off the old Medicines, and erecting a new method can be evinced. What is new in his very long ninth and last Chapter, (except his carping at *Hippocrates*, who is vindicated enough in Dr. *Sprackling*) is the Doctrin of Critical days, Urines and Pulses. I shall speak very shortly to them all.

As for the hypercritical Doctrin of Critical Days, that he derides, and

and calls it as childish a conceit, &c. tells you 'tis like children's game called *Even and Odd*, because, forsooth, the indicatory days fall upon every fourth, the decretory or critical upon every seventh day, saith, this doctrine is useful for two ends; first, to cloak the ignorance of Practisers; and, secondly, to hide the insufficiency of the Art: and yet withal is forced to admit, that this *shameful conceit*, as he terms it, hath been received in the world for 2000 years, and so indeed hath it generally been, and the truth of their assertion grounded upon constant experience. So that it must be either conceded that there is truth in the thing, or that the assertors have been all ignorant, and have used this as a cloak to hide that and the insufficiency of their Art. 'Tis strange that for 2000 years there hath been no learned Physician, but such as have obtruded

for 2000 years together.

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obtruded things false and ridiculous, and not onely so, but defended with their pens their opinions, and given reasons for it, which had it been used as a cloak to ignorance, they needed not have done. But now in this learned Age of ours, *M. N.* is sprung up to carp at all the Ancients, and yet offers nothing of his own so good as what we have received from them. But he vouchsafes at last, page 313. for the information of his Countrymen, to descend to a view of the odde conceits of the even and odd gamesters about critical days. Is pleased moreover to let us know that in his judgment *Hippocrates* was wiser then his followers, and that *Avicenna* approves of *Hippocrates* in that particular, because he contented himself onely with experience. Pray, Sir, if he delivered you nothing but observation, why do you deride him? Is a man to be scorned because

188 *The uses of the Septenary Number,*

because *M. N.* doth not believe what he saith? He that shall read him *de Principiis*, shall find many handsom observations of the Septenary number, as well in the conception, growth and dentition of children, as also of the same Number in acute sicknesses: And in the end of his Book, *de Judicationibus*, tells you, that Fevers are judged the fourth, the seventh, the eleventh, the fourteenth, &c. This that he hath thus delivered hath passed current ever since, onely upon the truth of his and the concurrent observations of others. But he tells you 'tis lawful to object *experience against experience*; that in our days things fall out as well upon other days as those he calls *Critical*. I am glad yet he allows that such changes fall out upon those days *Hippocrates* called *Critical*. Who ever said they never fell out upon other? I am sure *Hippocrates* doth not; nay, he tells you,

you, that those changes will fall out commonly, though no Physick at all be given. He doth not say, the Medicine rightly and duly or unduly administred, may not either hasten or retard the *Crisis*, which may also happen from many other causes. From the great leader *Hippocrates* he comes to his followers, the embracers of the *Pythagorean* fancy of the mysterious power of the number Seven, which, say they, may have effect upon men, though the cause be not known. I will not enter into that high speculation, but remit him to the *Jewish Cabalists*, to *Plato* and his Ideas of later standing, to *Leo*, *Isaurus*, *Brentius*, *Cornelius Agrippa*, *Trithemius*, *Gaffarel*, and many others, thought in their times learned men, and yet did not think the mystical doctrine of Numbers so vain and idle a conceit as *M. N.* would have us think it. *I, but Galen hath confuted that*
Doctrin

Doctrin well enough, but has lapsed into a worse error. 'Tis true, *Galen* hath spoke much against the fancy of the mystery in Numbers, and with becoming gravity and modesty, but that he has lapsed into a worse error, by attributing the cause of the *Crisis* in acute sickness to the motion of the Moon, is more then *M. N.* will well prove. It cannot with any colour of reason be denied, but that the Moon hath very great influence upon sublunary bodies, this is evident enough from many Shell-fishes, Rabbits, and many other creatures, who some in their brain, some in other parts, receive increase or diminution in such a Phasis of the Moon. Your *Lunatici*, *Epileptici*, men bitten with mad dogs, have always their accessles with more vigour, either at the increase or full of the Moon; why therefore it should have no power over the bodies of men, from whence

whence judgment may be made, is past my understanding. Against it he urges, *If it were so, then the squares and weeks of the Moon would always concur with the quaternions and weeks of the disease, but this very rarely falls out.* I am troubled to make sense of these words, viz. what he means by quaternion of the disease, if he mean the fourth day from the *decubitus*, as I think he doth, then he is much in the right, for the square or week of the Moon never did, nor never can concur with the fourth day of the disease, unless the Moon could go above twenty degrees in a day : if he would have the quaternion of the disease answer to the square of the Moon, then his words must sound thus, *The square and week of the Moon should answer to the square and week of the disease.* But who ever heard of the square of a disease ? The truth is, the square and week of

of the Moon is one and the same thing, for in the seventh day from the *decubitus*, the Moon always goes 90 degrees, or thereabouts, in her own Orb, and so hath a quartile aspect with that degree of the Zodiack that was ascendant at the time of the *decubitus*, which is sometime called the square of the Moon, because it is the chord of 90 degrees, and consequently the side of the greatest square can be inscribed in that circle, and comprehends in its four angles the cusps of the first, the fourth, the seventh and tenth Houses. Now the Moon, the fourth day from the *decubitus*, comes to a sextile of the ascendant, which being an aspect of amity, if the Moon be likewise well aspected by the other Planets, is said by Astrologers to indicate a good event of that sickness, and so consequently a good *Crisis* on the seventh day when she comes to quartile, which may decree

and other Aspects govern the Crisis. 193

decre good or bad according to the nature of those Planets that are then with the Moon, or aspected by her. So on the eleventh, when she comes to a trine, the fourteenth to an opposition, and so of the rest, till she hath absolved her Circle, before which time acute sicknesses are commonly judged. Not that these indicatory and decretal days do always just meet in that direct number of days to an hour, because the Moon is sometimes *velox*, sometimes *tarda cursu*; but he that is careful may gather much from them. Again, men are sometime deceived in the time of the *Crisis*, because they know not from what time precisely to reckon the *decubitus*; but he that shall heedfully observe the first great mutation in a sickness, and accordingly look back from that time, and account the *decubitus*, he will generally find the mutations happen

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according to the rules and days before mentioned: I am sure it is not otherwise, the Astrologers are much deceived. So is *Argolus*, who in his Book *De diebus criticis*, hath given many observations of the event of sicknesses, which happened according to these grounds. So that for ought I see, the judgment of diseases from the motion of the Moon and her aspects is not so frivolous as *M. N.* would have it, nor perhaps so much to be attended as some others require it should be; onely I would give our Author that advertisement, not hereafter to gainsay those opinions that have had long footing in the world, without he were able to give demonstrative reasons against them.

Paracelsus reckons the knowledge of Astronomy as necessary to a Physician, therefore could be no enemy to critical days. The opinion of *Fracastorius* I let pass, and shall

shall now have done with the doctrine of critical days, leaving *Asclepiades* and *Celsus* to their opinions, without quarrelling with them, though they differ from *Hippocrates* and *Galen*.

The next exception he takes is at *Galen's* too scrupulous description of the Pulse, and reduceth its motion to a far lesser number of varieties. He shall not have me his enemy in this matter, I agree with him, the varieties he enumerates are enough, and more then are generally observed; yet however let us thank *Galen* for his diligence, and if at any time we should light upon any variety in the Pulse not comprehended in this Writers ten varieties, let him remember *Galen* had taken notice of it before. *Sennertus*, and out of him *Johnstonus*, is content with three varieties, viz. *Aqualis*, & *inequalis*, *velox tardus*, *validus debilis*; so that he may see that all

196 For Urins see Forestus Fernelius.

the Dogmaticks were not so nice to insist upon all the subtilties of *Herophilus*.

Touching the judgment of Urines, I shall refer him to *Forestus* and *Fernelius*, from both which Authors it will appear, that the Urine is not sufficient in all diseases to make a perfect judgment, though in many it is a great help, especially those sicknesses that are acute, as well as diseases of the Reins, Kidneys, Bladder, Obstructions, and some others. But our Author tells us, he is onely for rectification and improvement of the doctrine of Urins, and propounds out of Dr. *Willis* ways of resolving them into those he calls the Chymical Principles, that by this means the *temperature may be rightly investigated*. I shall commend his or any man's diligence that shall contribute any thing to the improvement of our Art, where his own time and the disease

case will give him leave; let us
only be thus far wary, not to
mistake and call that an improve-
ment which perhaps is none, or
not at all conducive to that great
end of more speedy and secure
curing a disease; to which pur-
pose I do not yet find any of our
new and learned speculations
touching the motion of the
Bloud, the carriage of the Chyle,
the manner of sanguification, in-
jection of Medicines into the
veins, have proved hitherto very
effectual. In the mean time I
would not be thought to take
from the due praise of those per-
sons that have laboured herein,
and candidly imparted their ob-
servations for the benefit of the
Profession, without upbraiding
those Authors to whom the world
is beholding for much of that
knowledge it now enjoys, by their
communication of their labours
to those that came after them.

198 Dr. Sprackling is not answered.

His invectives against *Hippocrates* and *Galen*, which hold him many pages, I shall let pass, till the vindication of them by Dr. *Sprackling* shall be answered by this undertaker.

Touching bleeding in Scorbutick diseases, Fevers, &c. I shall be very short, having had occasion to speak more fully to it in another part of this Treatise; my mind not being to follow him in his unnecessary repetitions of the same thing. Pag. 383. he gives us caution to be very wary of drawing blood in our climate, in regard of the universal spreading of the Scorbutical tincture. After that, gives you the judgment of *Thonerus*, against bleeding in Fevers in the Northern climates, confirms this by the different nature of the blood of *Italians* and *Germans*, that in one 'tis safe, in the other dangerous; out of *Zacutus Lusitanus*. Thus far he and I shall agree,

Two Chym. Med. cure not all diseases. 199

agree, that not onely in the Scorbute and Fevers in Northern, but Southern climates also, caution is to be used in bleeding, as also in the use of all other Medicines. The want of this is what we blame in our *M. N.* and others of the same feather, who would make us believe they can cure all maladies with some one or two Chymical preparations, which they use promiscuously, without any caution or consideration had of the temperature of the party, the prevalency of the peccant humour, or preparation of the body to make it more fit for the reception of more potent remedies. As to bleeding in the Scorbute, I see not why it may not safely be administred, provided the Scorbutiek pollution be before well corrected, the stomach strengthened, and the chylication made good, so that a good and wholesome juice be carried (by what

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ductus

andrus is not material) to the heart. Bleeding at this time may be properly made use of, for in regard the whole mass of blood is infected with that acid saline quality he speaks of; I think it more rational to draw part of the infected blood away, that the good chyle mingling with the rest, may correct what remains; a part of its burthen being taken away, then to suffer the same Chyle, by a continual and daily supply to correct the whole. To *Thorenius* I shall onely say what a very learned Physician, yet alive, replied to me, when I told him that *Endovicus Septelius* disallowed very much the use of *Rhubarb* in purging choler, and asked his opinion. He bad me not give heed to the opinion of one man against the current of all practisers; this is the ease with *Thorenius*, and some few others of his side. I am certain, if we believe report, that great Wit

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Des Cartes died in Sweden of a Plurisie, because he refused to make use of that known remedy of letting blood. Neither see I any reason why the strong Wines, hot Spices and succulent Meats used in cold countries, may not as easily inflame the blood as in hotter Climates, where the external heat is much alloyed by their constant use of cooling Fruits, Sallets, much Water, and little use of Flesh-meats in their diets, we see Fevers do arise, and are often cured by bleeding.

Touching bleeding in malignant Fevers, when safe, when otherwise, I have spoken already, nor shall now trouble the Reader, no more then I shall to answer our Author's own observations, page 416. which must stand or fall upon the observers authority; so must that fancy of the difference of the Italian and German blood. After this,
page

page 439, &c. he makes an infinitating digression to the Apothecaries, wishes for their ease; *that the crude, fulsome, ill-conditioned Messes, and Mixtures, and Liquors may be thrown out of doors*; and this out of a supposition that he hath overthrown *the trifling notions* of Elements, Qualities, Temperaments, Complexions, &c. toward the confutation whereof he hath not made the least attempt, nor answered any reason alledged for them farther then reviling their Assertors, and a confident avowing for undoubted truths the wild fancies of his own brain; but however, the Shops are to be reformed, and all set upon a new basis of Chymical and experimental Physick, and this, forsooth, because the *Galenists* seeing their own old remedies very insufficient, fall themselves on the Chymical practise, though they do it by stealth, (as Mr. Le

Febvre

to spend their old stuff,

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Febvre (with) and the quainter practisers become Semi-chymists; dividing their practise between the Laborator and the Shop. And in this they do well, and want but little of true conversion, seeing the onely thing remains to be done is the throwing aside the old principles and Methods, &c. and 435. recites out of Mr. Le Febvre his great charity to them, and his endeavours to advance the dignity of Pharmacy, viz. the Art of the Apothecary, that now lies bending to its ruine, &c. Pag. 437. he tells you, that by these words of Mr. Le Febvre, the Apothecary Royal; the other Apothecaries are at a stand, inasmuch as the stream of practise running towards this new way, and the pedantick Galenists and semi-chymists not knowing how to attempt a cure but by prescribing the old stuff. The Apothecaries are bound to have it, lest they lose that sort of practise. His advice

and then buy his new Chymistry, wife therefore is, pag. 439. for the support of so worthy a Society as the Apothecaries, that they should be indulged to make use of their own Medicines at their own discretion among the Sick, seeing the prudent part of them understand the nature of them, and the old roade of practise belonging to them as well as (if not better then) the Galenists; and this to continue till the old Galenick formalities be laid asleep or reformed, &c. If the Apothecaries shall be misled by this kind of Sophistry, I should much wonder in which he lays open his design too evidently, which is not at all to benefit them, but himself and those of his brotherhood, and cause the Apothecaries to mutiny both among themselves and that body by which they have hitherto been supported. Why should he otherwise suppose that the stream of practise runs his way; that the pedantick Galenists and
Semi-

not being able to prepare such. 205

Semi-chymists, nay, the Apothecaries themselves, were not able to prepare their own Chymical remedies, exclusive to all other, if the thing he supposeth were true, and that they found it so? What unknown preparation have they made publick? what new thing are we beholding to the Apothecary Roial for in all his course of Chymistry? have we not Books enough stuffed with Chymical preparations? have we not *Libavius*, *Basilius Valentinus*, *Quercetane*, *Faber*, *Beguin*, *Crollius*, *Hartman*, *Scroderus*, *Minsichius*, *Angelus Sala*, and many others both *French* and *Dutch* Writers? What hath the Apothecary Roial which *Dr. French* hath not in the *English Tongue*, before him, or *Translations*, for the substance of the preparation, out of some of the Books before mentioned? But that 'tis the nature of this sort of Operators, if they make the least alteration,

206 M. N.'s drift to supply the Apoth.
alteration, (as for the purpose,
from distilled Water to May-dew)
to look upon the preparation
with such a slight alteration, as
wholly their own, without re-
turning thanks to him from whom
they stole it. Why then must the
Apothecaries be indulged a liber-
ty of practise, till their old stock
of *Galenick* remedies, and their
Messes and Mixtures which they
are forced to keep for that sort
of practise, are worn out? I tell
you why, to the end that by that
time this M. N. and those of his
party may have set up a Labo-
ratory, from which they pretend
all preparations after their new
model should be made, and the
Apothecaries furnished at easie
rates from their stock: this is
clearly their drift, as in another
place is expressed by this Writer.
But, pray, how have these men
monopolized all Chymical Learn-
ing, that the *Semi-chymists*, pe-
dantick

Is a Master onely of bad language.

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dentick *Galenists* and *Apothecaries* may not be Masters of that part of Learning as well as they? Away, away, *M. N.* with this disingenuons dealing; if you are Master of any new piece of knowledge in this kind, make the world partakers of it, and for my part I shall be one of the first shall give you your due praise; otherwise let me tell you, 'tis beneath a Gentleman, unworthy a Scholar, unbeseeming a man, to affix unhandsom names and reproaches upon those you know not, and perhaps such as have laboured more, and seen as much in such as you call Chymical preparations as you have done, *viz.* in several sorts of preparations of *Vitriol*, *Salt*, *Antimony*, *Mercury*, *Sulphur*, *Salt-peter*, and out of every of these made good and appropriate remedies, and successfully used them in many diseases, yet never found that effect that it was

was fit to make use of them onely to the exclusion of all the rest of the *Materia Medica*. As for the Apothecaries, I shall leave them to their own judgment, not doubting but the ancient method of Physick will be supported without any other assistance then its own worth. And to you, *M. N.* I wish more temper and consistence of judgment, for though you strike here at the old Method and Rules, yet in the close of your Book, page 496. you seem to be more moderate, and will be content to allow some more latitude in the use of Simples and single Specificks. I should have look'd upon this as a little retractation of what went before, for how can the nature of diseases be changed, and a new method necessarily introduced, if the old Simples and Specificks will yet in some cases serve the turn? But the mischief is, you are not long in this mood, for I find

find your hand subscribed under an engagement entred into by some of your company, to endeavour the instituting an Incorporation of Professors of Physick, *Onely by Hermetick or Chymical Physick*, and in those their endeavours to be assistant to one another, and never to relinquish that their engagement for any temporal respects whatsoever. To let pass the danger of these kinds of engagements, and how the best, nay perhaps all Professions, nay Trades, may be capable of improvement in the judgment of some rash undertakers; and the manifest untruth in the supposition upon which all this is built, to wit, That after sufficient experiment it is found most true, that Chymical Medicines well prepared, and as well applied, are above all others the safest, pleasantest and most effectual means, both for conservation of health, and cure of all diseases whatsoever.

soever. I would ask *M. N.* how he can engage to improve the Science of Physick *Onely* by Hermetick and Chymical Medicaments, except he understand the use of them exclusive to all others, whether Simples or Specificks? What ever is Chymically made, or otherwise, may be called, according to its nature, an Extraction, a Salt, a Spirit, an Oil, or what you will; but certainly 'tis not a Medicament but in its use and application: and I cannot believe *M. N.* did intend *onely* to know Chymical preparations, and not in like manner *onely* to make use of such, and no other at least at that time when he subscribed that *Engagement.* But perhaps between the publishing his Book and his subscription he had changed his mind, or warily considered, that every Clyster, Apozeme, or distilled Water from any Simple or Specifick, may be as well

well called a Chymical Medicament, as their Salt, Oils or Spirits, which are all made by the Fire, some in a close, some in an open one, and therefore the Preparers as deservedly called *Pyrotechnists* as any of these. If in this I have mistaken his meaning, I shall be willing to ask his pardon, when he makes me understand it. But that the Reader may know where this Engagement is, he shall find it printed at the end of a Book called, *The Poor man's Physician*, put out By *Thomas Odowde* (as he calls himself) *Esquire, one of the Grooms of the Chamber to his Sacred Majesty, King CHARLES the Second.* Now that at the same time you may know the jugling of these kind of dealers, and how likely this Esquire is to make his Boy do such strange Cures, which it seems a sworn Physician of the Kings could not, as appears by a Letter of his, page 73. of his book.

Be pleased to understand, that by the omission of three Letters he hath confounded one of the most honourable employments about the King, with one of the most inferiour, I think, of any above stairs; for had he called himself Groom of the *Bed-chamber* to his Majesty, it had been one of the most honourable Places about his Person, as it is *Groom of the Chamber*, you may understand his Office is to wait in the *Guard-chamber*, to go of such errands as any of the *Gentlemen-Ushers* of the *Presence-chamber*, nay, though they be but *Quarter-waiters*, shall think fit to employ him in. Now he had this Subtilty to make such Readers as could not distinguish between *Groom of the Chamber* and *Groom of the Bed-chamber* believe he was some great Officer, whereas in truth there is no such matter, nor he likely to take such an employment, were he such

Mr. Boyle's opinion of Physicians. 213

a proficient in Physick as he would have the world believe. I could shew the falshood of most of those Cures he pretends in that Book to have done, but that is not my task, who am already weary, but shall close up all this discourse with the words of Mr. Boyle, who speaking of the great difficulties in the Art of Physick, and consequently that perhaps, without presumption, some innovation might be made in the *Methodus Medendi*, goes on: Tet, Pyro-
philus, I am much too young, too Exper. Philos. p. 2. cap. 9. pag. 102.
unlearned and too unexperienced to dare to be Dogmatical in a matter of so great moment. And the Physicians are a sort of men, to whose learned Writings on almost all Subjects the Common-wealth of Learning is so much beholding, that I would not willingly dissent from them about those Notions in their own Profession, wherein they seem generally to agree. And do very much

much disapprove the indiscreet praise of our common Chymists and Helmontians, that bitterly and indiscriminately rail at the Methodists, in stead of candidly acquiescing in these manifest Truths their observations have enrich'd us with, and civilly and modestly shewing them their errors where they have been mistaken. Let me advise you hereafter, M. N. to write with such modesty and candor, as this both Learned and Honourable Person doth, and you will quickly learn to have a less esteem for your self, and the world put a greater value upon your Writings and Endeavours,

F I N I S.

E R R A T A.

PAGE 3. line 22. *dele* smattering. page 7. line
 9. *τάύλη* *leg.* *τάύλην*. page 21. in *tit.* *dele*
 all. page 23. in *tit.* *leg.* Natures appearances.
 page 25. line 8. *leg.* *πρεσβωσις*. *ib.* line 20. *leg.*
ἀδολύσις. page 40. line 3. *leg.* could. page 33.
tit. *leg.* *M. N.* confident asserting. page 56. line
 15. *leg.* next. page 67. line 4. *leg.* *popularis*. page
 70. line 4. after chapter adde *is*. page 79. line 4.
leg. *dolosus*. page 97. line 3. *leg.* *Pharmacopæas*.
 page 103. line 23. *leg.* *Pharmacopæas*. page 106.
 line 19. after *therefore* make a period, and let
In begin a line. page 115. line ult. *leg.* *Crat.*
 page 145. line 6. *leg.* things. page 161. line 10.
leg. which. page 166. line 16. after the word
operations, adde *and mistake*: page 169. line 22.
leg. then I to say they are, &c. page 189. line 20.
leg. *Leo Suarvius*. page 203. line 5. *leg.* *Laboratory*.